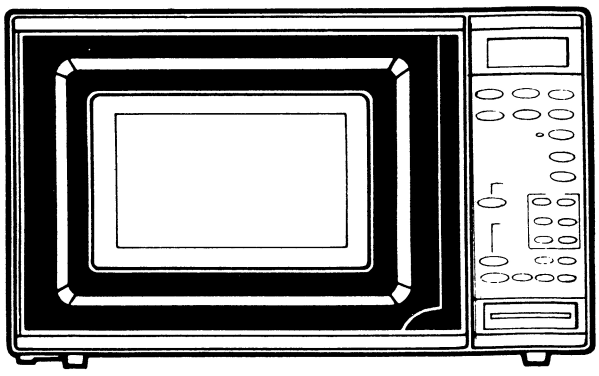
GoldStar

MICROWAVE/ GRILL/OVEN SERVICE MANUAL

CAUTION
BEFORE SERVICING THE UNIT, READ THE "SAFETY PRECAUTIONS" IN THIS MANUAL.



MODEL: MH-1261MD

GoldStar

SAFETY PRECAUTIONS

This device is to be serviced only by properly qualified service personnel.
Consult the Service Manual for proper service procedures to assure continued safety operation and for precautions to be taken to avoid possible exposure to excessive microwave energy.

PRECAUTIONS TO BE OBSERVED BEFORE AND DURING SERVICING TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

A) Do not operate or allow the oven to be operated with the door open.

B) Make the following safety checks on all ovens to be serviced before activating the magnetron or other microwave source, and make repairs as necessary; (1) Interlock operation, (2) Proper door closing, (3) Seal and sealing surfaces (arcing, wear, and other damage), (4) Damage to or loosening of hinges and latches, (5) Evidence of dropping or abuse.

C) Before turning on microwave power for any service test or inspection within the microwave generating compartments, check the magnetron, wave guide or transmission line, and cavity for proper alignment, integrity, and connections.

D) Any defective or misadjusted components in the interlock, monitor, door seal, and microwave generation and transmission systems shall be repaired, replaced, or adjusted by procedures described in this manual before the oven is released to the owner.

E) A microwave leakage check should be performed on each oven prior to release to the owner.

— Proper operation of the microwave ovens requires that the magnetron be assembled to the wave guide and cavity. Never operate the magnetron unless it is properly installed.
— Be sure that the magnetron gasket is properly installed around the dome of the tube whenever installing the magnetron.
— Routine service safety procedures should be exercised at all times.
— Untrained personnel should not attempt service without a thorough review of the test procedures and safety information contained in this manual.

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CAUTIONS

CAUTIONS TO BE OBSERVED WHEN TROUBLESHOOTING

Unlike many other appliances, the microwave oven is high voltage, high current equipment. Though it is free from danger in ordinary use, extreme care should be taken during repair.

CAUTION: REMOVE YOUR WATCH WHEN WORKING CLOSE TO OR REPLACING THE MAGNETRON.

Warning about the electric charge in the high voltage capacitor;
For about 30 seconds after the oven stops, an electric charge remains in the high voltage capacitor when replacing or checking parts, short between oven chassis and the "+" terminal of high voltage diode by using a properly insulated jumper wire.

WARNING: THERE IS HIGH VOLTAGE PRESENT, WITH HIGH CURRENT CAPABILITIES IN THE CIRCUITS OF THE HIGH VOLTAGE TRANSFORMER SECONDARY AND FILAMENT TRANSFORMER SECONDARY. IT IS EXTREMELY DANGEROUS TO WORK ON OR NEAR THESE CIRCUITS WITH THE OVEN ENERGIZED.

WARNING: NEVER TOUCH ANY CIRCUIT WIRING WITH YOUR HAND OR INSULATED TOOL DURING OPERATION. DO NOT MEASURE ANY VOLTAGE IN THE HIGH VOLTAGE CIRCUIT INCLUDING FILAMENT VOLTAGE OF MAGNETRON.

WARNING: DO NOT TOUCH ANY PART OF THE CONTROL CIRCUIT. A RESULTING STATIC ELECTRIC DISCHARGE MAY DAMAGE THIS CONTROL PANEL.

MICROWAVE RADIATION: PERSONNEL SHOULD NOT BE EXPOSED TO THE MICROWAVE ENERGY WHICH MAY RADIATE FROM THE MAGNETRON OR OTHER MICROWAVE GENERATING DEVICE IF IT IS IMPROPERLY USED OR CONNECTED. ALL INPUT AND OUTPUT MICROWAVE CONNECTIONS, WAVEGUIDES, FLANGES, AND GASKETS MUST BE SECURE. NEVER OPERATE THE DEVICE WITHOUT A MICROWAVE ENERGY ABSORBING LOAD ATTACHED. NEVER LOOK INTO AN OPEN WAVEGUIDE OR ANTENNA WHILE THE DEVICE IS ENERGIZED.

SPECIFICATIONS

Power Supply	230V~, 50Hz
Power Consumption	1350 Watts (Microwave) 1280 Watts (Grill) 1580 Watts (Oven)
Output	850 Watts (Microwave) 1200 Watts (Grill) 1500 Watts (Oven)
Microwave Frequency	2,450 MHz
High Voltage Capacitor	1.1μF, 2100V AC
High Voltage Diode	350 mA, 9.0 KV
Oven Lamp	240V ~, 25W
Timer	99 Min 99 Sec. (Microwave, Grill and Oven)
Power Control	MICOM
Outer Dimension	381×565×503 (H×W×D) mm
Cavity Dimension	238×370×373 (H×W×D) mm
Safety Device	Primary Interlock Switch, Secondary Interlock Switch, Monitor Switch. Fuse 15 Amp Magnetron Thermostat Open at 145°C ± 6°C Close at 60°C ± 15°C Heater Thermostat Open at 145°C ± 6°C Close at 60°C ± 15°C

* Specifications are subject to change without notice.

INSTALLATION

A. GROUNDING INSTRUCTIONS

For personal safety, this appliance must be earthed. In the event of an electrical short circuit, earthing reduces the risk of electric shock by providing an escape wire for the electric current. This appliance is equipped with a cord having an earthing wire with an earthing plug, which must be plugged into an individual socket that is properly installed and earthed.

The consumer should have it checked by a qualified electrician or serviceman if the earthing instructions are not completely understood, or if doubt exists as to whether the appliance is properly earthed.

Your Microwave oven must be connected to a 3 pin plug which is properly earthed.

WARNING – THIS APPLIANCE MUST BE EARTHED

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow	: Earth
Blue	: Neutral
Brown	: Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter E or by the earth symbol ⏚ or coloured green or green-and-yellow.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

B. CIRCUITS

For safety purposes this oven must be plugged into a 15 Amp circuit. No other electrical appliances or lighting circuits should be on this line. If in doubt, consult a licensed electrician.

C. VOLTAGE WARNING

The voltage used at the wall receptacle must be the same as specified on the oven serial plate located on the back or on the side of the control panel of the oven. Use of a higher voltage is dangerous and may result in a fire or other type of accident causing oven damage. Low voltage will cause slow cooking. If your microwave oven does not perform normal operation in accordance with AC power source and voltage, remove the power cord and then insert it again.

D. PLACEMENT OF THE OVEN

Your microwave oven can easily be placed in your kitchen, family room or any other room in your home. Place the oven on a flat surface such as a kitchen counter top or a specially designed microwave oven cart. Do not place oven above a gas or electric range. Free air flow around the oven is important. This appliance should be placed away from the wall.

E. DO NOT BLOCK AIR VENTS

All air vents should be kept clear during cooking. If air vents are covered during oven operation the oven may overheat. In this case a sensitive thermal safety device automatically turns the oven off. The oven will be inoperable until it has cooled sufficiently.

F. DO NOT TOUCH THE FRONT GLASS

This glass is very hot during heater operating.

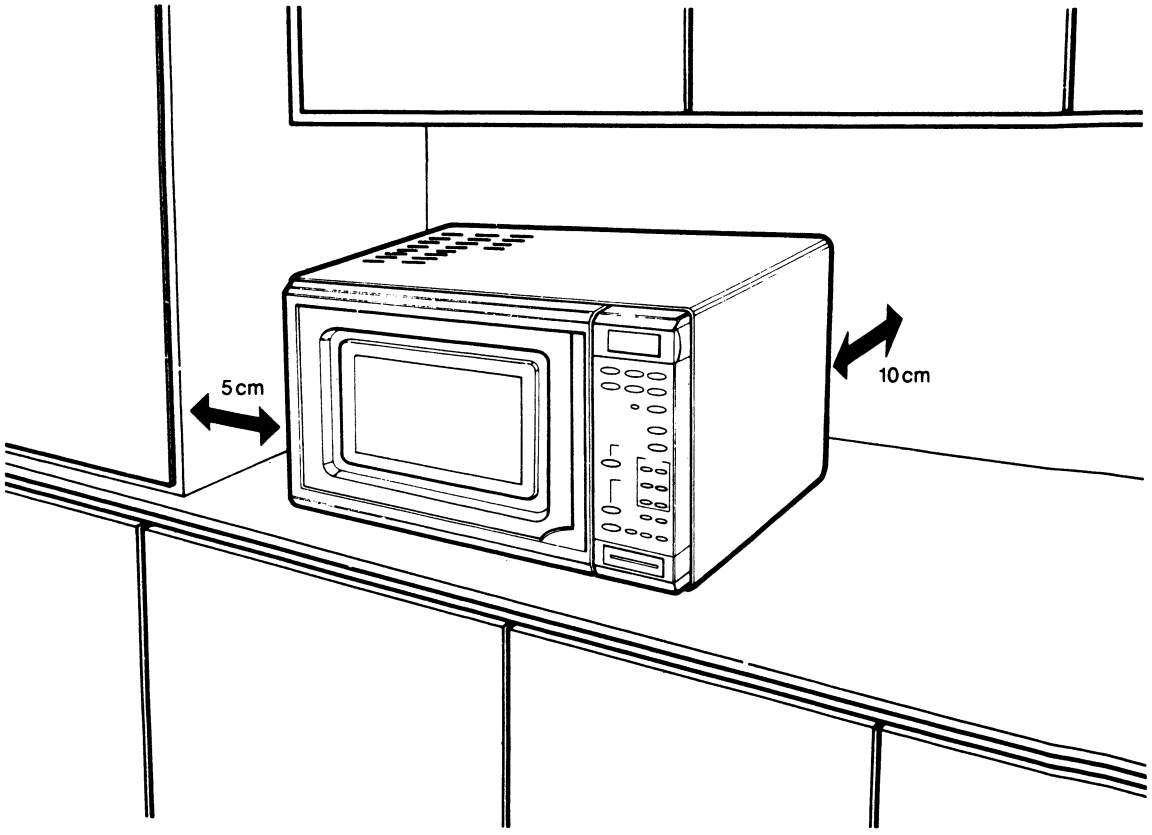


Fig. 1

FEATURES

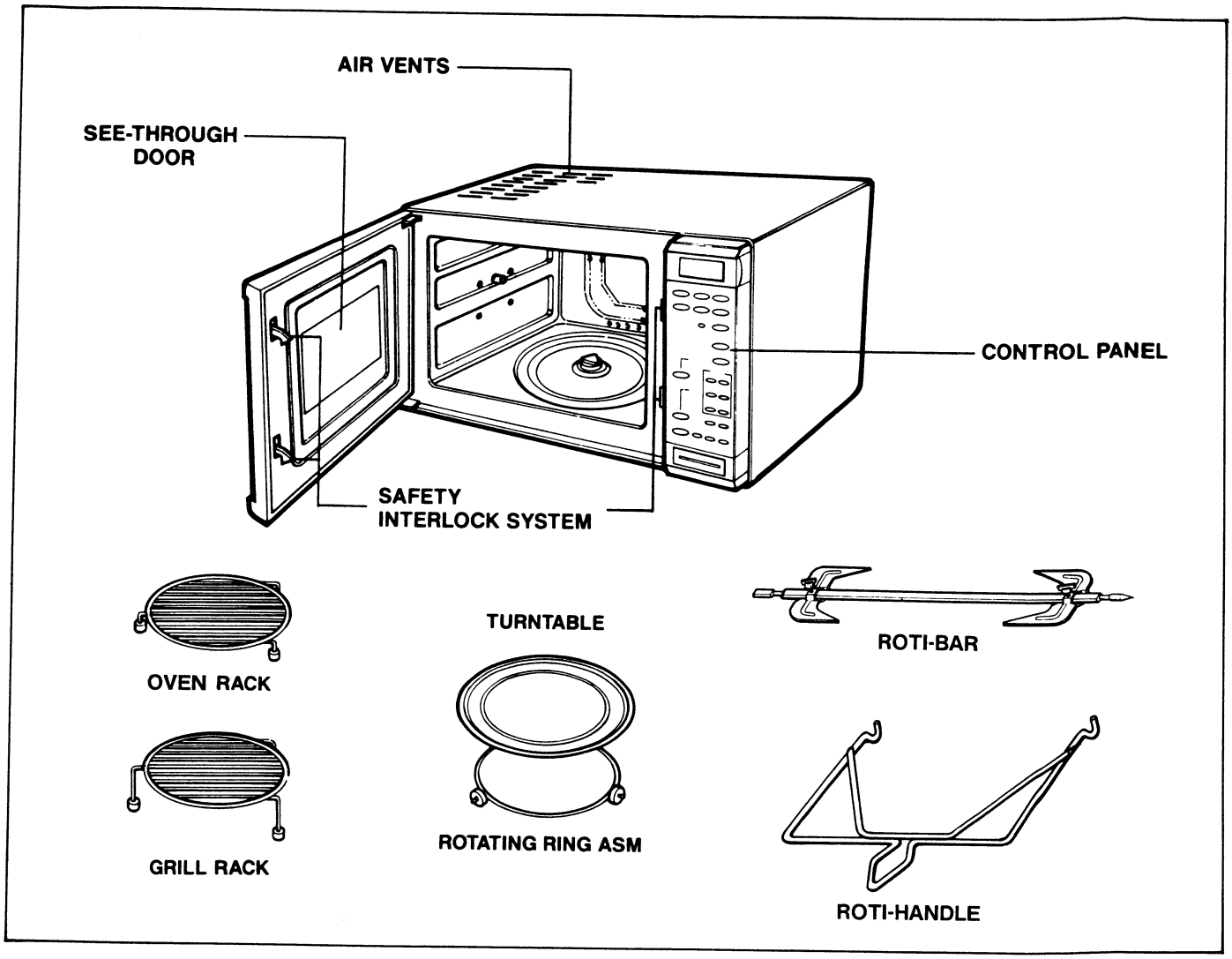


Fig.2

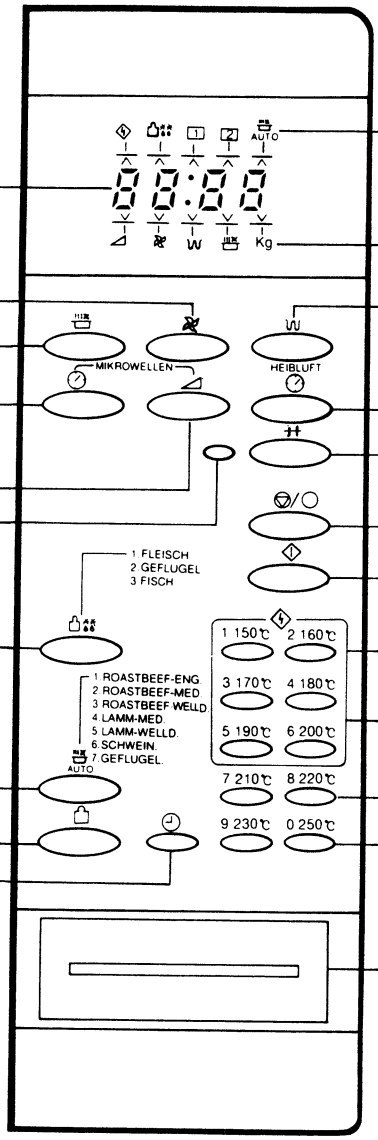
Remove your Microwave/Oven and all material from the shipping carton.
Yout oven will be packed with the following material:

Turntable	1 Each
Rotating Ring Asm	1 Each
Oven Rack	1 Each
Grill Rack	1 Each
Cookbook	1 Each
Owner's Manual	1 Each
Roti-Bar	1 Each
Roti-Handle	1 Each

Do not use this Microwave/Grill/ oven for commercial purposes.
This Microwave/Grill/ oven is made for household use only.

Do not opertate the oven at microwave and combination mode with Roti-Bar, oven and grill rack placed in the cavity when oven is empty.

CONTROL PANEL



DISPLAY WINDOW- to display the time of day, timer, temperature, cooking power and cooking category.

CONVECTION- to select convection cooking.

COMBINATION- to select combination cooking.

TIME- to set the microwave cooking time.

POWER- to select micro power cooking and cooking powers.

ROTISSERIE LAMP

DEFROST- to select auto weight defrost

COMBI COOK- to select auto weight combination cooking.

WEIGHT- to set the auto cooking weight

CLOCK- to set the time of day.

INDICATOR LIGHTS- to indicate the programmed input.

GRILL- to select grill cooking.

TIME- to set the heater cooking time.

ROTISSERIE- to select rotisserie cooking.

STOP/CLEAR- stops the oven and clears all entries, except the time of day.

START- to start the oven.

JET START- to select micro power (cooking power HI) and start within 6 minutes with one touch.

NUMBERS- to enter the:
- time of day
- cooking temp.
- cooking times
- cooking category
- cooking powers

DOOR OPEN BUTTON

Fig.3

COOKING GUIDE

"MICRO POWER" COOKING

Some foods with a high moisture content or that need fast cooking to maintain their natural flavor and texture are best when cooked by using microwave power only. If foods need slower cooking in order to give the best results, you can change the cooking power.
There are ten cooking powers.

"CONVECTION" COOKING

Some foods are best when cooked by using convection heat. The oven has a heating element to give the dry heating needed to produce crisp brown exteriors. convection cooking temperatures range from 150℃ to 250℃.

"GRILL" COOKING

Some foods are best when cooked by using grill heater, which fits in making the surface of food slightly browning by radiation heat. Grill cooking temperature is fixed at 180°C and it is impossible to change temperature to cook food at other temperature.

"COMBINATION" COOKING

The oven combines the best features of microwave, grill and convection cooking. Cook foods with speed and accuracy while roasting and evenly browning them to juicy, tender perfection. Output and heater source operation is fixed as follows.

CATEGORY ITEM	1	2	3	4
MICROWAVE ON TIME	6 SEC	10 SEC	8 SEC	12 SEC
MAIN OPERATION HEATER	CONV. HEATER	CONV. HEATER	CONV. HEATER	GRILL HEATER
SUB HEATER ON TIME	16 SEC	12 SEC	14 SEC	10 SEC
TEMP	180°C	200°C	160°C	180°C

"AUTO WEIGHT DEFROST"

This feature allows you to defrost sea food, meat or poultry. There are MEAT (DEF 1), POULTRY (DEF 2), and FISH (DEF 3) categories in the auto weight defrost, which can defrost food with the weight of the defrosting food input. The way of using each category is to touch the defrost key and then numeral key (1, 2 or 3). The cooking power will automatically be fixed in proportion to the time as follows.

	STAGE 1		STAGE 2		STAGE 3	
CATEGORY	P/L	TIME RATE	P/L	TIME RATE	P/L	TIME RATE
DEF 1 (MEAT)	7	10%	3	30%	0	60%
DEF 2 (POULTRY)	7	10%	3	35%	0	55%
DEF 3 (FISH)	5	20%	3	30%	0	50%

"AUTO WEIGHT COMBINATION" COOKING

This feature allows you to cook meat or poultry by weight on combination using "microwave, grill and convection". Choose cook category and programme in the weight of the food. Weight can be programmed in the kilogrammes and tenths of a kilogramme. Touch this pad to select the appropriate cook category 1 through 7. Categories for Weight Cook and maximum weights as follows.

CATEGORY	FOOD	MAXIMUM WEIGHT
AC-1	BEEF RARE	2.9 kg
AC-2	BEEF MED.	2.9 kg
AC-3	BEEF WELL	2.9 kg
AC-4	LAMB MED.	2.9 kg
AC-5	LAMB WELL	2.9 kg
AC-6	PORK	2.9 kg
AC-7	TURKEY & CHICKEN	5.9 kg

ROTISSERIE COOKING

For rotisserie cooking, touch rotisserie key after setting of the mode (microwave mode, oven mode, combi cook mode, grill mode and auto weight combi cook) you want to use with rotisserie cooking. When the start key is touched, the rotisserie is operating with the mode you want.

REGULAR TIMER

Your oven also has a timer that you can use to time any activity, for example, mixing time, cooking time on your range, etc. This timer function will not turn on your oven.

"JET START"

JET START is used to warm briefly some foods up to 6 min. By one touch, micro power (cooking power HI) will start conveniently.

TWO-STAGE COOKING

Some recipes need more than one cooking stage. Many foods will cook better when cooked for another period of time at a different power setting. You can preset both stages at the beginning, start the oven, and then the oven will change automatically into the second stage at the preset time.

"STOP/CLEAR"

When Stop/Clear is touched once during the oven's operation, the oven will stop operating temporarily. If Stop/Clear is touched once again, the programmed data will be cancelled. But if you want to continue to operate the oven after the oven stops, you can touch the Start key.

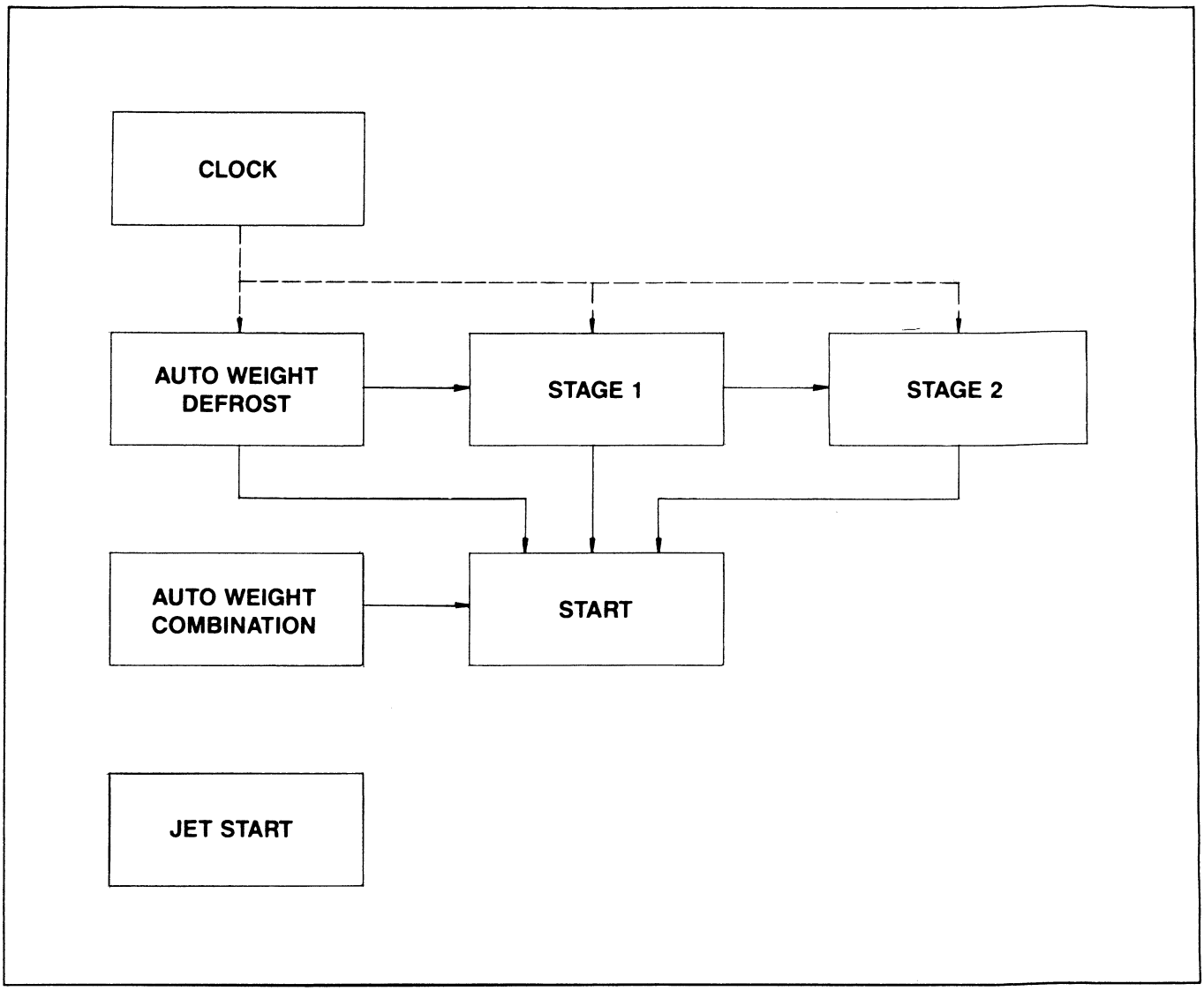
If Stop/Clear is touched during direct start's operation direct start function comes to an end.

OPENING DOOR

Opening the door during cooking will stop cooking progress without clearing program. Cooking resumes if the door is closed and START is touched. The oven light will turn on when the door is opened. When the door is closed, the oven light will turn off. During oven's operation the oven light will turn on.

OPERATING INSTRUCTIONS

COOKING FLOW CHART



Cooking procedure have three sequential programs.

AUTO WEIGHT DEFROST ⟶ STAGE 1 ⟶ STAGE 2

Cooking program can be partially and independently selected.

Example: AUTO WEIGHT DEFROST ⟶ STAGE 1 ⟶ STAGE 2
AUTO WEIGHT DEFROST ⟶ STAGE 1
AUTO WEIGHT DEFROST
STAGE 1 ⟶ STAGE 2
STAGE 1
AUTO WEIGHT COMBINATION
JET START

SUMMARIZED OPERATING INSTRUCTIONS

- **"MICRO POWER" COOKING**

1. Touch Micro time.
2. Touch numbers for desired cooking time.
3. Touch micro power.
4. Touch number for desired cooking power.
5. Touch Start.

- **"CONVECTION" COOKING**

1. Touch convection.
2. Touch number for desired oven temperature.
3. Touch Heater Time.
4. Touch numbers for desired cooking time.
5. Touch Start.

- **"GRILL" COOKING**

1. Touch Grill.
2. Touch Heater Time.
3. Touch numbers for desired cooking time.
4. Touch Start.

- **"COMBINATION" COOKING**

1. Touch Combination.
2. Touch number for desired combination category.
3. Touch Heater Time.
4. Touch numbers for desired cooking time.
5. Touch Start.

- **"AUTO WEIGHT DEFROST"**

1. Touch Auto Weight Defrost.
2. Touch number for desired category of Auto Weight Defrost.
3. Touch Weight.
4. Touch numbers for desired cooking weight.
5. Touch Start.

- **"AUTO WEIGHT COMBINATION"COOKING**

1. Touch Auto Weight Combination Cooking.
2. Touch number for desired category of Auto Weight Combination.
3. Touch Weight.
4. Touch numbers for desired cooking weight.
5. Touch Start

- **"ROTISSERIE" COOKING**

1. Touch rotisserie key after setting of the mode (microwave mode, convection mode, combination mode, grill mode and auto weight combination).
2. Touch Start.

- **"JET START"**

1. Touch number "1", "2", "3", "4", "5", or "6".

- **"TWO-STAGE COOKING (MICRO POWER)"**

1. Touch micro Time.
2. Touch numbers for desired cooking time.
3. Touch micro Power of Microwave Control.
4. Touch number for desired cooking power.
5. Touch micro Time.
6. Touch numbers for desired cooking time.
7. Touch micro Power.
8. Touch number for desired cooking power.
9. Touch Start.

- **"REGULAR TIMER"**

1. Touch micro Time.
2. Touch numbers for desired time period.
3. Touch micro Power.
4. Touch number "0".
5. Touch Start.

NOTE:

1. Beep Sound

The beep sound is activated under the following conditions.

Conditions	Beep Sound Signal
• When the control key is touched,	———
• When the cooking stage is changed,	——— ———
• When the preheat is ended and the holding time is begun,	——— ———
• When cooking is ended,	——— ——— ———————
• When an error occurs,	——— ——— ———————
• When the first power level stage is ended during auto weight defrost operation,	——— ——— ——— ——— ———

2. Microwave Cooking Power

Microwave cooking power can be chosen from any of the 10 cooking powers listed below. If cooking power is not programmed, the oven operates at cooking power HI.

Numbers of Touch Pads	Cooking Power	%	Microwave Emission Time (sec/cycle)	
			ON	OFF
1	10	10	4	18
2	20	20	6	16
3	30	30	8	14
4	40	40	10	12
5	50	50	12	10

Numbers of Touch Pads	Cooking Power	%	Microwave Emission Time (sec/cycle)	
			ON	OFF
6	60	60	14	8
7	70	70	16	6
8	80	80	18	4
9	90	90	20	2
	HI	100	22	0

3. Digital Readout Display

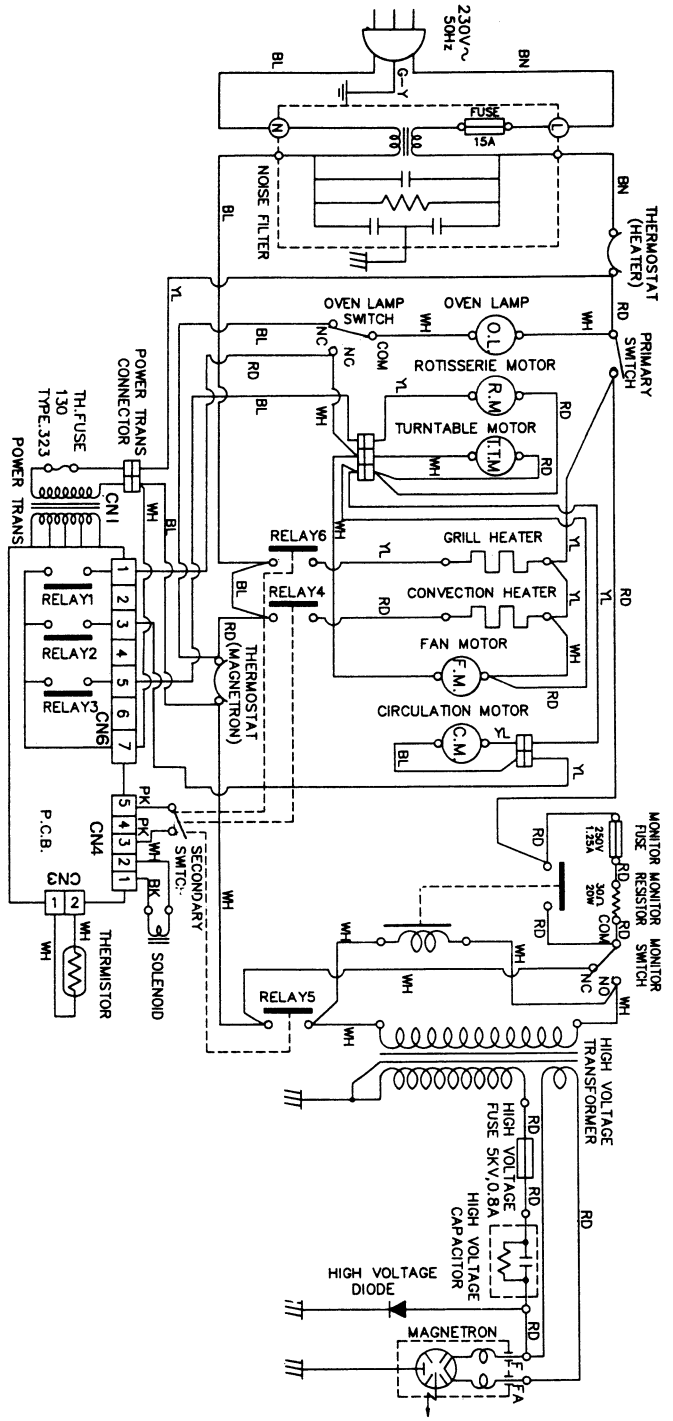
Time	Temperature	Clock	Cooking Power
99:99	200 °C	12:30	P- 50
(Example: 99 min and 99 sec)	**(Example: 200°C)**	**(Example: 12 hours and 30 minutes)**	**(Example: cooking power 50)**

SCHEMATIC DIAGRAM

SYSTEM 1: STAND-BY CONDITION

Set up: Door is opened. Oven power cord is plugged into standard 230 volt ground outlet.
Normal operation
- Oven light turns on.

RELAY 1: OVEN LAMP
TURNTABLE MOTOR
FAN MOTOR
RELAY 2: CIRCULATION MOTOR
RELAY 3: ROTISSRIE MOTOR



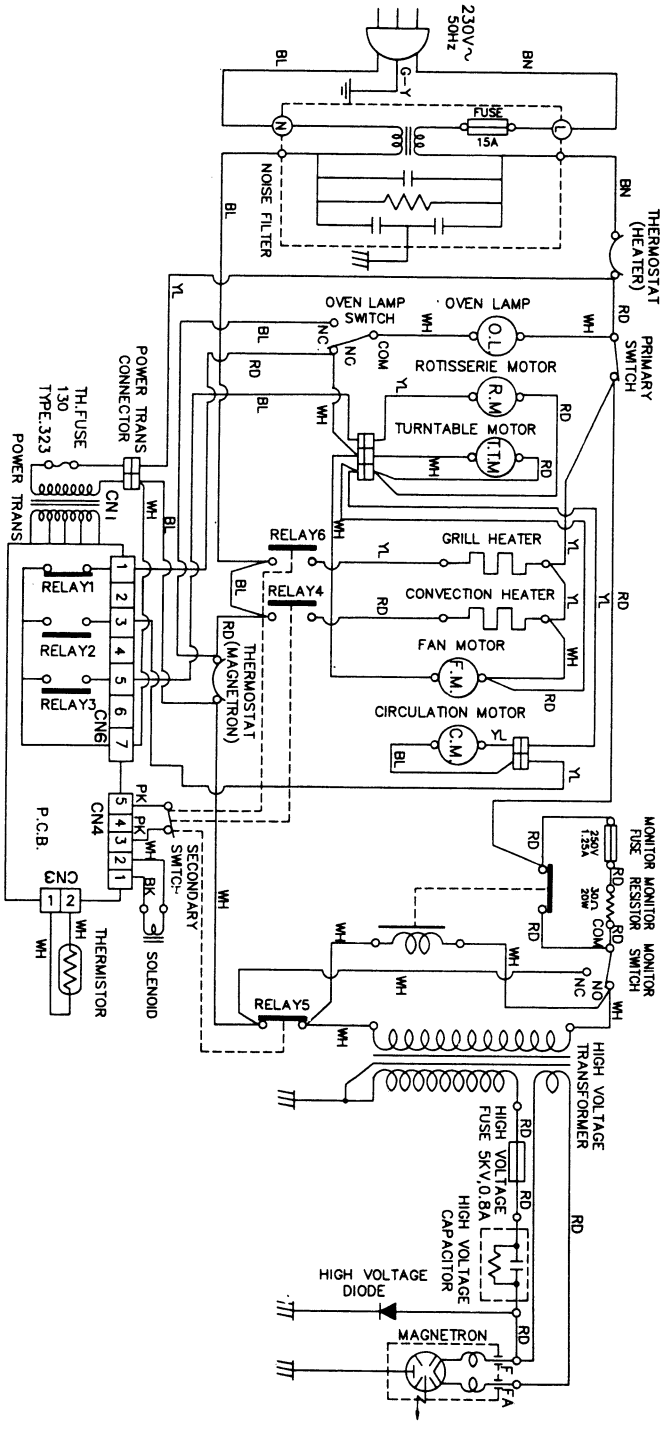
SYMBOL	COLOR
WH	WHITE
BK	BLACK
BL	BLUE
RD	RED
YL	YELLOW
PK	PINK
BN	BROWN
G-Y	GREEN-YELLOW

Fig.4

SYSTEM 2: MICROWAVE COOKING CONDITION

Set up: Door is closed. Start is touched.
Normal operation
- Oven light turns on.
- Turntable operates.
- Fan motor operates.

RELAY 1: OVEN LAMP
TURNTABLE MOTOR
FAN MOTOR
RELAY 2: CIRCULATION MOTOR
RELAY 3: ROTISSRIE MOTOR



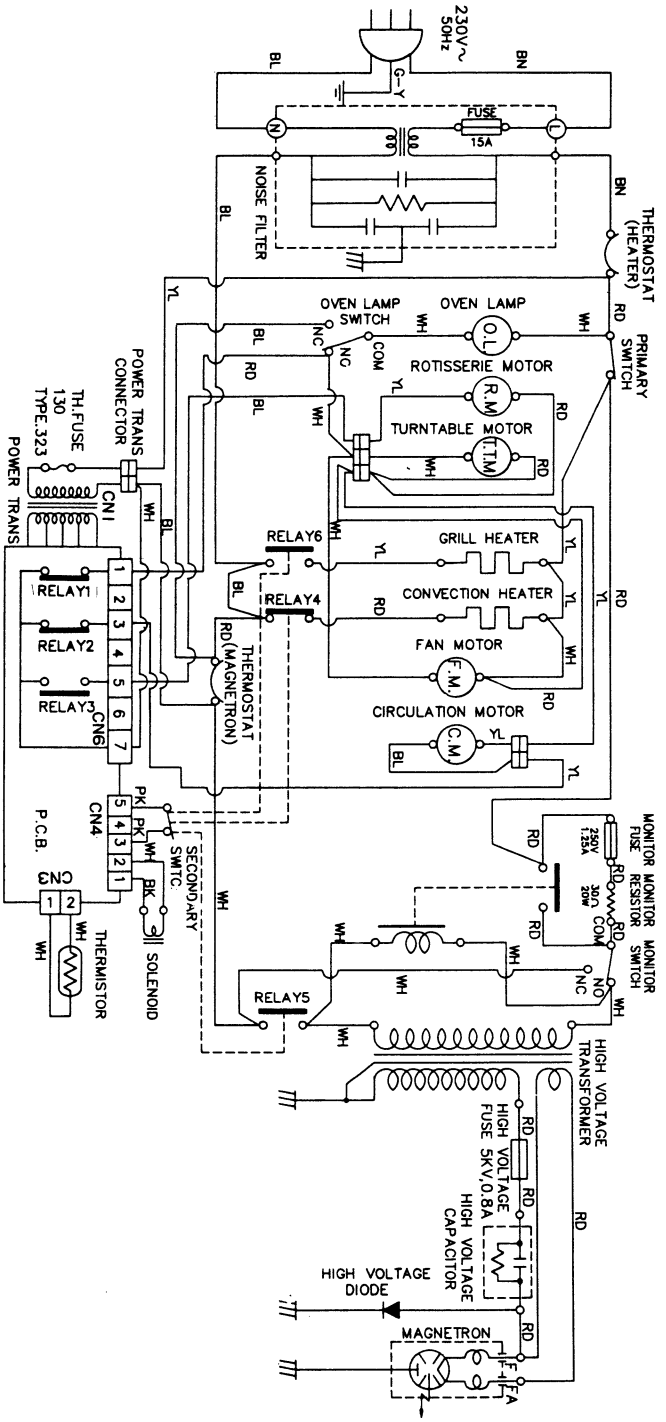
SYMBOL	COLOR
WH	WHITE
BK	BLACK
BL	BLUE
RD	RED
YL	YELLOW
PK	PINK
BN	BROWN
G-Y	GREEN-YELLOW

Fig.5

SYSTEM 3: CONVECTION COOKING CONDITION

Set up: Door is closed. Start is touched.
Normal operation
- Oven light turns on.
- Turntable operates.
- Fan motor and circulation motor operate.

RELAY 1: OVEN LAMP
TURNTABLE MOTOR
FAN MOTOR
RELAY 2: CIRCULATION MOTOR
RELAY 3: ROTISSRIE MOTOR



SYMBOL	COLOR
WH	WHITE
BK	BLACK
BL	BLUE
RD	RED
YL	YELLOW
PK	PINK
BN	BROWN
G-Y	GREEN-YELLOW

Fig.6

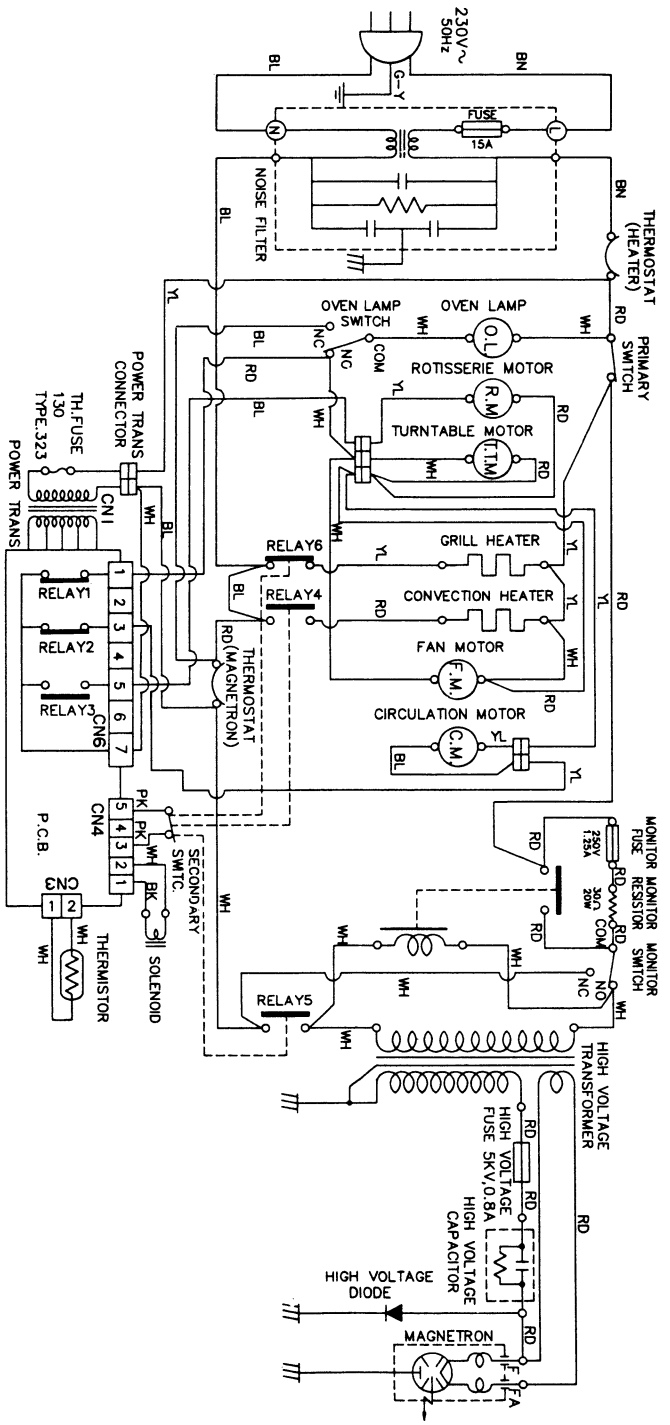
SYSTEM 4: GRILL COOKING CONDITION

Set up: Door is closed. Start is touched.

Normal operation

- Oven light turns on.
- Turntable operates.
- Fan motor and circulation motor operate.

RELAY 1: OVEN LAMP
TURNTABLE MOTOR
FAN MOTOR
RELAY 2: CIRCULATION MOTOR
RELAY 3: ROTISSRIE MOTOR



SYMBOL	COLOR
WH	WHITE
BK	BLACK
BL	BLUE
RD	RED
YL	YELLOW
PK	PINK
BN	BROWN
G-Y	GREEN-YELLOW

Fig.7

CIRCUIT DESCRIPTION

- The low voltage transformer supplies the necessary voltage to the micom controller when power cord is plugged in.
- As the door is opened, the contact of MONITOR SWITCH short. This switch creates the short circuit to blow 1.25A fuse during operation under abnormal condition. (i.e. should the contacts of primary switch and relay and/or secondary switch fail to open the circuit).

WHEN COOKING POWER AND COOKING TIME ARE SET BY TOUCHING THE TIME AND THE POWER PAD

- The micom controller memorizes the function you set.
- The time you set appears in the dispaly window.
- Each indicator light turns on to indicate that stage has been set.

WHEN TOUCHING THE START PAD WITH THE MICROWAVE FUNCTION SELECTED

- The oven lamp, fan motor and turntable motor operate by closing the relay 1 and primary switch.
- The 230 Volts AC is supplied to the high voltage transformer through the contact of the relay 5 and primary switch. 3.2 Volt AC generated from the filament winding of the high voltage transformer applied to the magnetron to heat magnetron filament through two noise suppression chock coils. A high voltage 2100 Volts AC is generated in the secondary winding of the high voltage transformer and this secondary voltage is increased by action of the diode and charging of the high voltage capacitor. This resultant is then applied to the magnetron via the filament.
- The disturbance wave generated by the magnetron is suppressed by the choke coils, filter capacitors and the magnetron shielded case, so that TV and RADIO programs are not impaired by noise.

WHEN TOUCHING THE START PAD WITH THE OVEN COOKING FUNCTION SELECTED

- Relay 4 is closed to provide a current path to the Convection Heater.
- The microwave does not emit with Relay 5 open.
- The Relay 1,2 and primary switch are closed to provide a current path to the oven lamp, the turntable motor, the fan motor and the circulation motor.

WHEN TOUCHING THE START PAD WITH THE GRILL COOKING FUNCTION SELECTED

- Relay 6 is closed to provide a current path to the Grill Heater.
- The microwave does not emit with Relay 5 open.
- The Relay 1,2 and primary switch are closed to provide a current path to the oven lamp, the turntable motor, the fan motor and the circulation motor.

WHEN THE OVEN IS SET AT ANY POWER EXCEPT MAX. POWER LEVEL

- Micom controller controls the ON-OFF time of the RELAY by the applied gets signal to vary the average output power of microwave oven from "POWER LEVEL 1" to "POWER LEVEL 10".
- One complete cycle of Relay is 22 seconds.

WHEN THE DOOR IS OPENED DURING COOKING

- Both primary switch and relay open to cut off primary winding voltage to the high voltage transformer.
- ON-OFF of relay is coupled electrically with open and close of secondary switch.
- When the door is opened, secondary switch is opened and when the door is closed, secondary switch is closed.
- Indicator light turns on and display stops counting down.
- Relay stops functioning.
- As the door is opened, if the contact of primary switch and relay and/or secondary switch fail to close, the 1.25A fuse opens due to the large current surge caused, by the monitor switch activation and then stops magnetron oscillation.

WHEN TOUCHING THE START PAD WITH THE ROTISSERIE COOKING FUNCTION SELECTED

- Relay 3 is closed to provide a current path to the Rotisserie motor.

MAGNETRON TUBE

- The magnetron tube is the heart of the microwave oven. It is basically a diode with the addition of a magnetic field. The magnetron tube assembly consists of cylindrical cathode (negative) terminal, enclosed within a cylindrical anode (positive) terminal, evacuated of all air, and surrounded by a permanent magnet.
- In order to create an electron flow from cathode to anode, the cathode must be heated and a potential difference must exist between the two. This is accomplished by heating the cathode with 3.15 VAC (from the filament winding of the high voltage transformer), and applying a negative 4000 VDC (from the voltage doubler circuit) to the cathode.
- Originally, the electrons would travel in a straight line from the cathode to the anode (see Fig. 8). However, with the addition of a permanent magnet surrounding the anode creating a magnetic field, the electrons travel an orbital path between the cathode and anode (see Fig. 9). As the electrons approach the anode, their orbital path takes them past small resonant cavities that are part of the anode. The passing notion of the electrons induces electron current to oscillate in the resonant cavities at the very high frequency or 2,450 megahertz. This RF energy is then transferred to the antenna.

TESTING MAGNETRON TUBE

- Disconnect power, remove the wrapper, and discharge the capacitor.
- Remove the two leads from the magnetron terminals.
- Connect the ohmmeter between one terminal of the magnetron and the outer case of the magnetron. If the ohmmeter reads infinity, go to below. If the ohmmeter reads less than infinity, the magnetron is shorted.
- Connect an ohmmeter across the terminals of the magnetron. The ohmmeter should read less than one ohm. If the ohmmeter reads over one ohm or infinity, the tube is defective.

MAGNETRON WITHOUT MAGNETIC FIELD

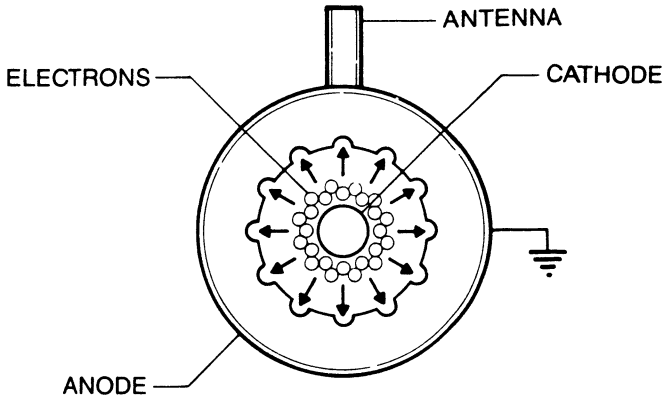


Fig.8

MAGNETRON WITH MAGNETIC FIELD

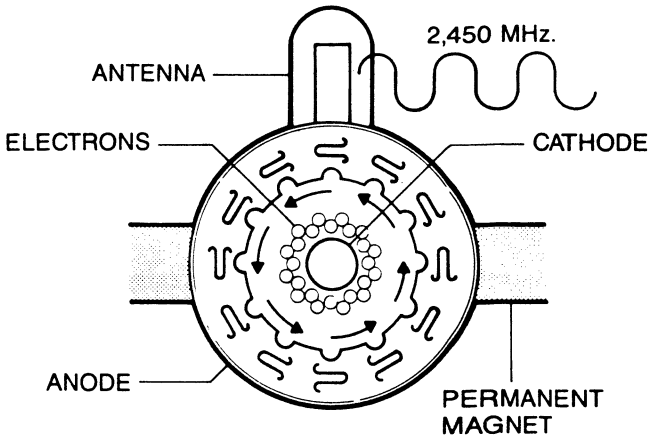


Fig.9

DESCRIPTION AND FUNCTION OF COMPONENTS

OVEN LAMP

The oven lamp illuminates the interior of the oven during cooking so that food can be seen without opening the door.
The oven lamp will turn off when the cooking time is ended.

TURNTABLE MOTOR

The turntable motor rotates the turntable located on the bottom of the oven cavity during the cooking operation to cook the foods evenly.
Turntable will rotate in either direction.

THERMISTOR

The thermistor is a negative temperature coefficient type. The resistance of the thermistor detects the temperature of oven cavity, and then the P.C.B. causes the heater relay to operate, thus the power supply to the heater is turned ON/OFF.

OVEN THERMOSTAT

The oven thermostat located on the insulator-T, is designed to prevent damage to the components and acts when heater overheats to abnormally high temperatures. Under normal convection operation, the heater thermostat remains closed. However, when abnormal condition within the convection chamber approaches a critical level (145°C), the oven thermostat will open and interrupt the circuit to the oven, causing it to shut down.

MAGNETRON THERMOSTAT

The magnetron thermostat located on the magnetron, is designed to prevent damage to the magnetron if an overheated condition develops in the tube due to abnormal state.

The magnetron thermostat remains closed under normal operation, but the magnetron thermostat opens when abnormal high temperatures within the magnetron approach a critical level (145°C), causing oven to shut down.

DOOR OPENING MECHANISM

The door can be opened by pushing button and lifting the latch as a result of action by the latch spring, latch and latch board jaw. The latch is released from the latch board and the door can be opened.

PRIMARY AND SECONDARY INTERLOCK SWITCHES (Fig.10)

The primary interlock switch is mounted in the latch board-U and secondary interlock switch is mounted in the latch board-L.

When the door is closed, the switches are activated by the latch on the door. When the door is opened, the switches interrupt the circuit to all components except the oven lamp.

MONITOR SWITCH (Fig.10)

The monitor switch, mounted on the latch board-L with the oven lamp switch, is activated by a latch on the door while the door is closed.

OVEN LAMP SWITCH (Fig.10)

The oven lamp switch mounted on the latch board-L with monitor switch, is activated by latch on the door while the door is closed.

ROTISSERIE MOTOR

The rotisserie motor rotates the roti-bar located in the cavity during the rotisserie cooking. Roti-Bar will rotate in either direction.

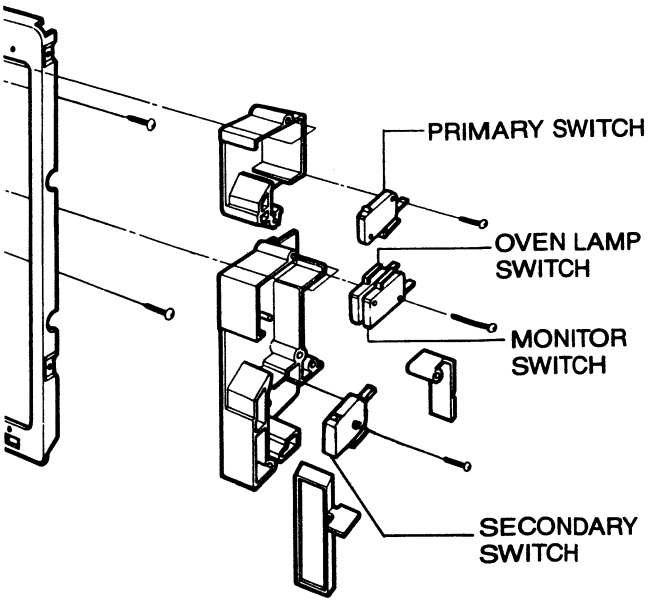


Fig.10

OVEN COOKING SYSTEM (Fig.11)

Oven cooking is not performed by direct heat from the heating elements, but cook by forced circulation of the hot air produced by the heating elements, located at the back side of the oven cavity.

The air heated by the heating elements (heater) is circulated through the convection chamber of the oven cavity by means of the circulation fan which is driven by the circulation motor.

Then the hot air enters the inside of oven through the vent holes provided in the back plate of the oven cavity. Next the hot air heats up the food on the turn-table and leaves the oven cavity through the vent in the centre of the oven cavity back side. In a continuous cycle, this hot air is reheated by the heater, passes through the back chamber (convection chamber) and enters the inside of the oven cavity again. In this way, the hot air raises inside air temperature of the oven cavity and thus the food is being cooked. When the Oven cooking function operates, grill heater and convection heater apply heat to food synchronally before the setting temperature reaches and only convection heater alternates on and off according to temperature after the setting temperature reaches.

The on/off of the convection heater is controlled by thermistor.

CHAMBER ASSEMBLY (Fig.11)

The air heated by the heating element is circulated through the convection passage provided on the back side of the oven by means of the convection fan which is driven by the convection motor. It then enters the inside of oven through the vent holes provided on the rear of the oven cavity. Next, the hot air heats up the food on the turntable and leaves the oven cavity through the vent in the centre of the oven cavity rear wall.

Without leaving the oven, this hot air is reheated by the heating element, passes through the convection passage and enters the inside of the oven cavity again, in a continuing cycle.

DAMPER OPERATION

When the oven starts oven, grill and combination function, damper bracket is pulled by solenoid so that the hot air does not leave the cavity.

When the function is microwave, the power supply to the solenoid is turn off and damper spring push the damper bracket so that the fan circulate the air within the cavity.

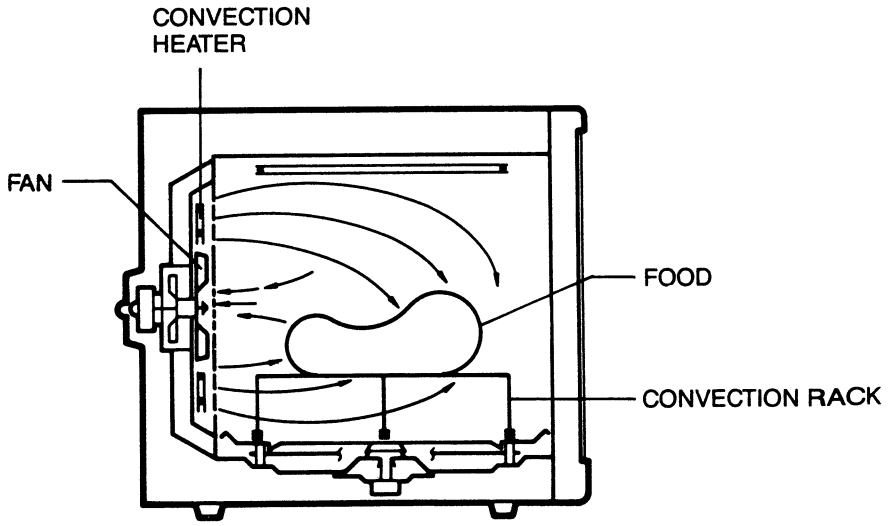


Fig.11

GRILL COOKING SYSTEM (Fig.12)

Grill cooking is a system of cooking food by using the radiation heat emitted by grill heater within the oven cavity.

This system makes the setting temperature within the oven cavity keep at 180°C and the surface of food slightly browning by radiation heat.

When the grill cooking function operates, grill heater and convection heater apply heat to food synchronally before the setting temperature reaches and only grill heater alternates on and off according to temperature after the setting temperature reaches.

The on/off of grill heater is also controlled by thermistor.

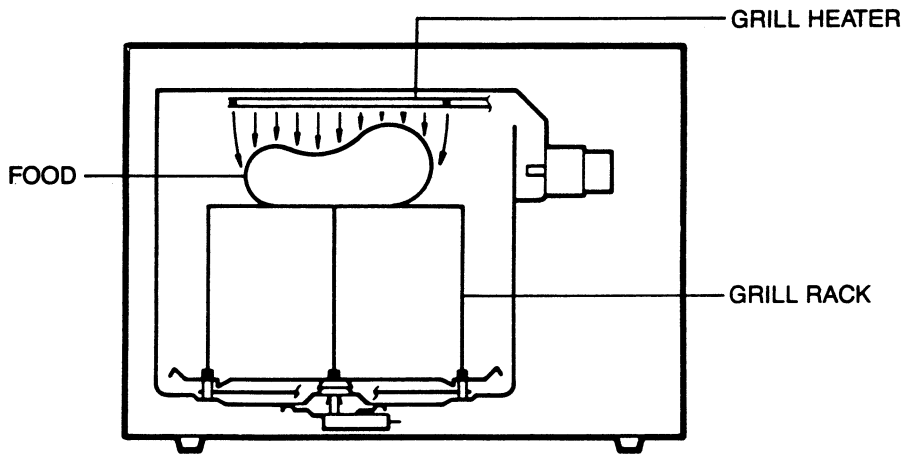


Fig.12

NECESSARY TOOLS AND MEASURING INSTRUMENTS

NECESSARY TOOLS

Tools normally used for TV servicing are sufficient. Standard tools are listed below.

- Diagonal pliers
- Long nose pliers
- Cross head screwdriver
- Socket wrench (size 5 mm)
- Nutdriver (size 5 mm)
- Adjustable wrench
- Soldering iron
- Solder
- Vinyl insulation tape
- Polishing cloth

NECESSARY MEASURING INSTRUMENTS

- Tester (Volt DC, AC-ohmmeter)
- Inch scale
- Electromagnetic radiation monitor
- 600 cc glass beaker or equivalent
- Glass thermometer 100°C
- Two 1 liter beakers or equivalent

INSTALLATION AND ADJUSTMENT OF THE INTERLOCK SYSTEM

A. INSTALLATION

CAUTION: FOR CONTINUED PROTECTION AGAINST RADIATION EMISSION,
REPLACE ONLY WITH THESE TYPES OF SWITCHES.
PRIMARY (INTERLOCK) SWITCH; SZM-V16-FA-63
SECONDARY (INTERLOCK) SWITCH; SZM-V01-FA-33
(INTERLOCK) MONITOR SWITCH; SZM-V16-FA-61
OVEN LAMP SWITCH; SZM-V6-FA-31

The installation of PRIMARY, SECONDARY, MONITOR and OVEN LAMP SWITCH are as shown Fig.13.

PROCEDURE ② → ① ④ → ③

B. ADJUSTMENT PROCEDURE

TO AVOID POSSIBLE EXPOSURE TO MICROWAVE ENERGY LEAKAGE, THE FOLLOWING ADJUSTMENT OF THE INTERLOCK SWITCHES SHOULD BE MADE ONLY BY AUTHORIZED SERVICE PERSONNEL.

(1) Loosen the two screws (1) holding the latch board-U to the oven cavity front flange.
(2) With the door closed, adjust the latch board by moving it back and forth, or up and down.
(3) Secure the screws firmly.
(4) Loosen the two screws (3) holding the latch board-L to the oven cavity front flange.
(5) With the door closed, adjust the latch board by moving it back and forth, or up and down.
(6) In and out play of the door allowed by the latch board U and L should be less than 0.5mm.
(7) Secure the screws firmly.

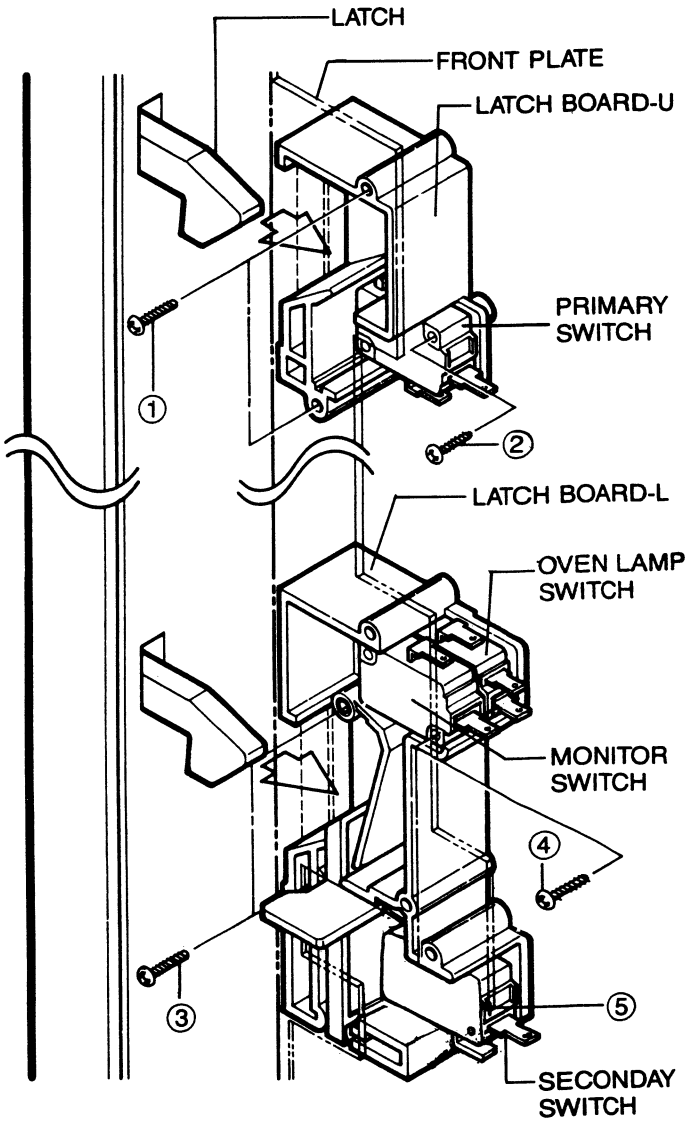


Fig.13

After the adjustment, make sure to perform the following test only by authorized service personnel.

(1) The in and out play of the door must be less than 0.5 mm when latched. First check the latch board-U position, pushing and pulling the upper protion of door toward the oven face. Then check the lower portion of door toward the oven face. Both results should be less than 0.5 mm.

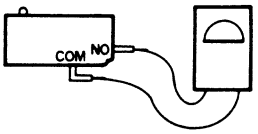
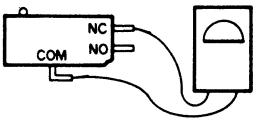
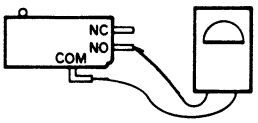
(2) Make sure the door latch closes the monitor switch and oven lamp switch after the primary switch is open. This (COM-NO) test should be performed with the door being opened very slowly.

(3) Re-install the outer case and check for microwave leakage. Makes sure the microwave leakage is below the limit of 1mW/cm^2 (with a 275 ml water load.)

NOTE: A MICROWAVE ENERGY LEAKAGE TEST MUST ALWAYS BE PERFORMED WHEN THE UNIT IS SERVICED, FOR ANY REASON.

INTERLOCK CONTINUITY TEST

- The service personnel should replace all of the monitored safety interlock switches and monitor switch if the oven has been rendered inoperative due to the failure of the monitored safety interlock(s).
- Be sure to connect the monitor switch after replacement and to check interlock/monitor continuity.

COMPONENTS	TEST PROCEDURE		RESULTS	
SWITCHES (Wire leads removed.)	Check for continuity of the switch with an Ohm-meter		Door open	Door close
	Primary Switch/ Secondary Switch			
	Monitor Switch			
				
	NOTE: After checking for the continuity of switches, make sure that they are correctly connected.			

PRIMARY INTERLOCK (UPPER LATCH) SWITCH TEST

When the door button is slowly depressed with the door closed, an audible "click" should be heard at the same time or successively at intervals. When the button is slowly released, the latches should activate the switches with an audible "click".

If the latches do not activate the switches when the door is closed, the switches should be adjusted in accordance with adjustment procedure.

Isolate the primary switch by disconnecting it from leadwire. Connect the ohmmeter leads to the common (COM) and normally open (NO) terminal of the switch. The meter should indicate an open circuit in door open condition.

When the door is closed, the meter should indicate a closed circuit.

When the primary switch operation is abnormal, make the necessary adjustment or replace the switch only with the same type of switch.

SECONDARY INTERLOCK (LOWER LATCH) SWITCH TEST

Isolate the secondary switch by disconnecting it from leadwire. Connect the ohmmeter leads to the common (COM) and normally open (NO) terminals of the switch. The meter should indicate an open circuit in the door open condition. When door is closed, the meter should indicate a closed circuit. When the secondary switch operation is abnormal, make the necessary adjustment or replace the switch only with the same type of switch.

MONITOR SWITCH TEST

Isolate the monitor switch by disconnecting it from leadwire. Connect the ohmmeter leads to the common (COM) and normally closed (NC) terminals of the switch. The meter should indicate closed circuit in the door open condition. When door is closed, the meter should indicate an open circuit.

When the monitor switch operation is abnormal, replace the same type of switch.

NOTE: After repairing the door or the interlock system, it is necessary to do this continuity test before operating the oven.

DISASSEMBLY AND PARTS REPLACEMENT PROCEDURE

CAUTION

Before touching any oven component or wiring, first of all, disconnect the power supply cord and wait for about 5 minutes (in order to discharge the high voltage capacitor).

A. REMOVING OUTER CASE (Fig.14)

(1) Remove four screws from the side section.
(2) Remove seven screws from the rear section.
(3) Push the outer case back about 1 inch (3cm) to free it from the front plate.
(4) Lift the case from the set.

*** REPLACING THE POWER SUPPLY CORD.**

- Remove the outer case.
- Disconnect the terminal of power supply cord.
- Remove the power supply cord from the appliance.
- Itstall new power supply cord as shown in Fig.14 Connect terminals of power supply cord, Live, Neutral and Earth.

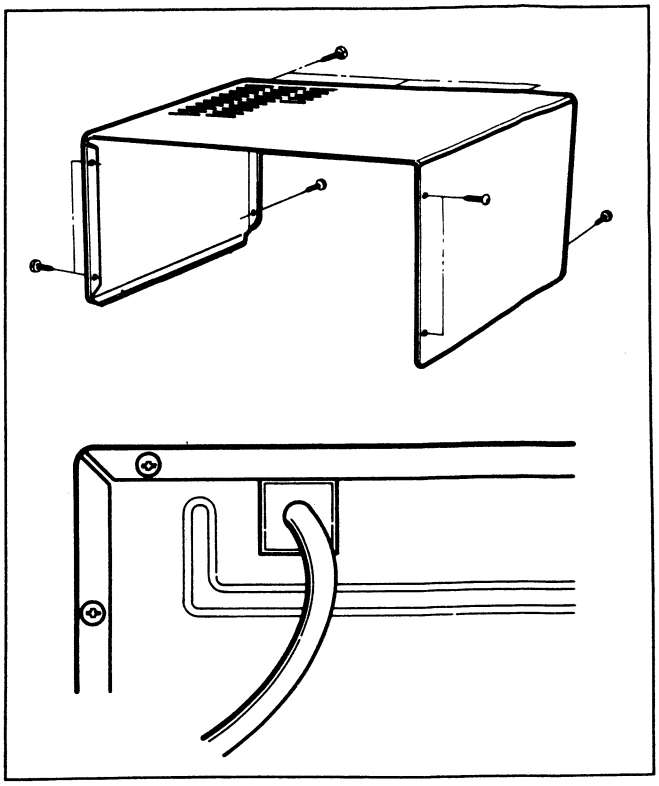


Fig.14

B. REMOVING CONTROL PANEL ASSEMBLY AND PCB ASSEMBLY (Fig.15)

(1) Disconnect the wire leads (from relay 1, 2, 3), power trans connector (2-pin), Roti-M wire (1P), nector (2-pin) and I/O connector (5 pin and 4 pin).
(2) Remove one screw securing the P.C.B. earth wire lead to the front plate.
(3) Remove two screws securing the control panel to the front plate.
(4) Lift the control panel slightly and remove from the front plate.
(5) Remove the F.P.C. connector the terminal socket.
(6) Remove one screws securing the P.C.B. assembly to the control panel.

NOTE: Remove the wire leads and connector VERY CAREFULLY. Be sure to grasp the connector and not the wires.

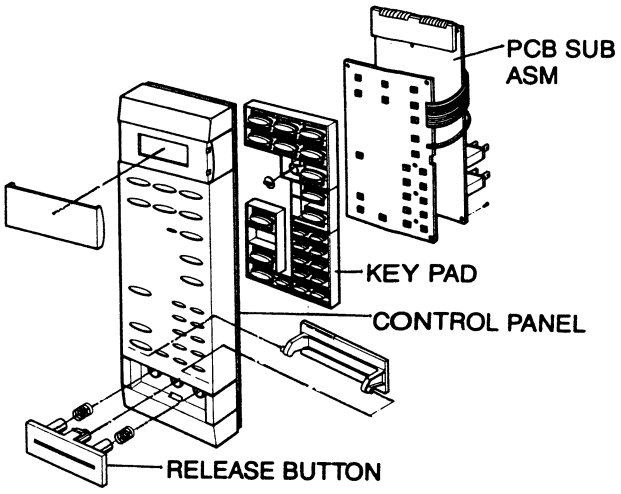


Fig.15

C. REMOVING DOOR ASSEMBLY (Fig.16)

(1) Remove one hex screw and two tapping screws securing the hinge plate-u to the hinge supporter.
(2) To remove the door, tilt the top of the door towards you and lift the door up.

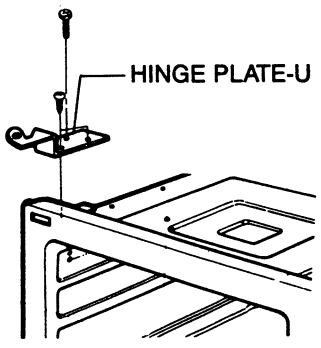


Fig.16

NOTES:

1. After replacing the door, be sure to check that the primary switch, monitoir switch, oven lamp switch and secondary switch operate normally.
2. After replacing the door, check for microwave energy leakage with a survey meter.
   (Refer to the test procedure on page 46.)

D. REMOVING MAGNETRON (Fig.17)

(1) Disconnect the wire leads from the magnetron terminals.
(2) Remove the one screw holding the air duct to magnetron.
(3) Remove four screws securing the magnetron to the wave guide.

NOTE:

1. When removing the magnetron, make sure its dome does not hit any adjacent parts, or it may be damaged.
2. When replacing the magnetron, be sure to install the magnetron gasket in the correct position and be sure that the gasket is in good condition.

E. REMOVING COOLING FAN MOTOR

(Fig.17)

(1) Disconnect three lead wires from the Noise Filter Asm and remove one screw securing the Power Cord Earth wire to the Fan Guide Asm.
(2) Disconnect each two lead wires from the Fan Motor and H.V. Capacitor.
(3) Disconnect a lead wire for H.V. Diode Cable Asm from the Magnetron.
(4) Remove three screws securing the Fan Guide Asm to the back cover and lift up the Fan Guide Asm.
(5) Remove two screws securing the Fan Motor to the Fan Guide after pulling out the fan from the Fan Motor.
(6) Remove one screw securing the monitor resistor to the fan guide

F. REMOVING HIGH VOLTAGE DIODE AND HIGH VOLTAGE CAPACITOR. (Fig.17)

(1) Follow steps 1 through 4 in the part E.
(2) Remove one screw securing the capacitor bracket and one lead wire of H.V. Diode ASM to the Fan Guide Asm.
(3) Pull the Capacitor Bracket downwards.

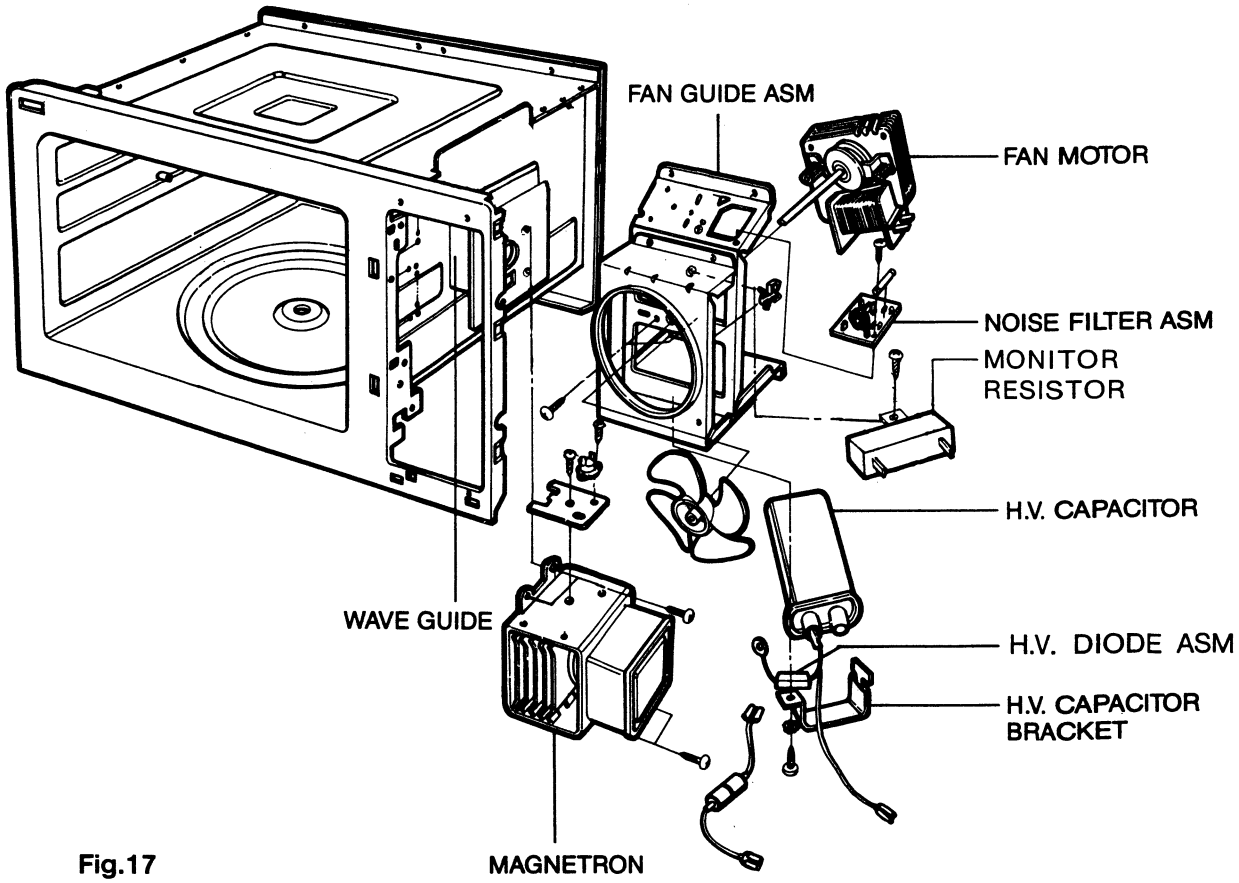


Fig.17

G. REMOVING HIGH VOLTAGE TRANSFORMER (Fig.18)

(1) Disconnect the wire leads from the transformer to the magnetron, H.V. Capacitor and H.V. Fuse assembly.
(2) Remove two screws securing the H.V. Transformer to the base plate.
(3) Tilt the top of the H.V. Transformer towards you, pull slightly and lift it up.

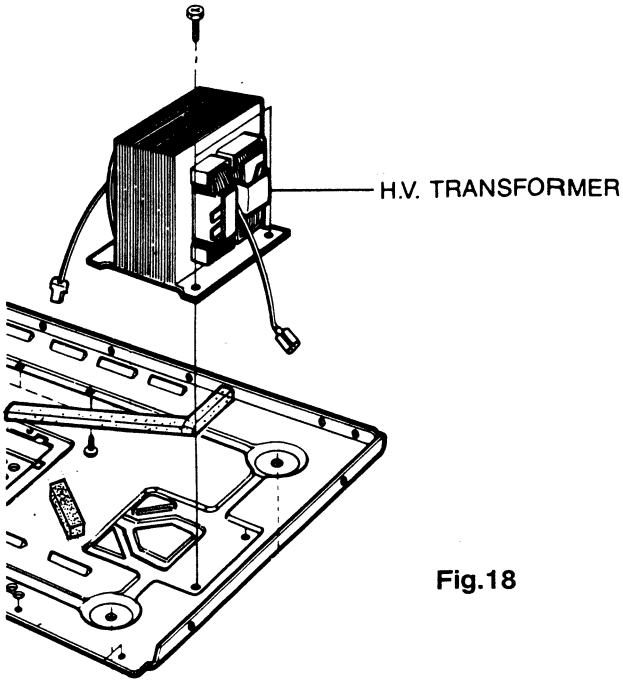


Fig.18

H. REMOVING TURNTABLE MOTOR

(Fig.19 .20 .21)

(1) Lay the set down on its back.
(2) Remove the turntable motor cover of the baseplate. The turntable motor cover is easily removed by pinching the six parts with a wire cutter. (Fig.20)
(3) Disconnect the lead wires from the turntable motor terminals.
(4) Remove two screws securing the turntable motor to the oven cavity assembly. (Fig.20)
(5) Lift the turntable motor.
(6) After repairing the motor, rotate the removed turntable motor cover.
(7) Fit the turntable motor cover's projecting part to the base plate's slit. (Fig.21)

NOTE:

1. Remove the lead wire from the turntable motor VERY CAREFULLY with long nose pliers.
2. Be sure to grasp the connector, and not the wires when removing.
3. In assembling, insert the slit part of turntable motor cover and secure it by using two screws.

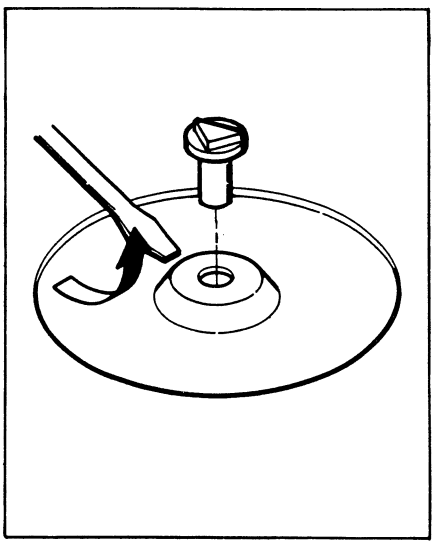


Fig.19

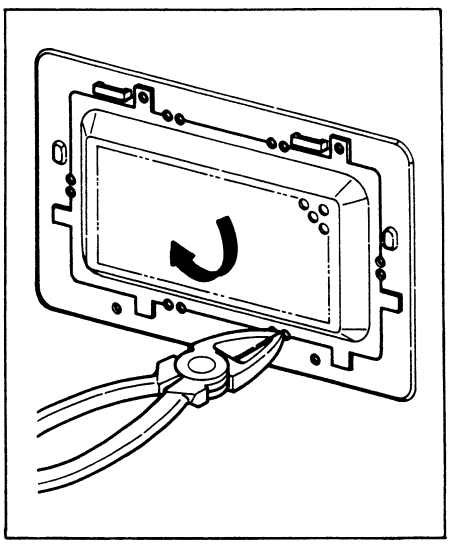


Fig.20

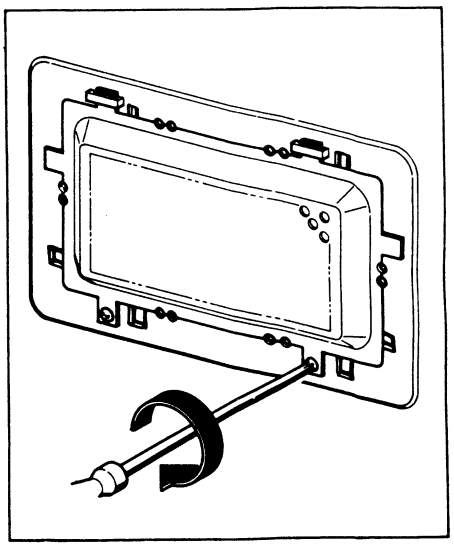


Fig.21

I. REMOVING CIRCULATION MOTOR (Fig.22)

(1) Disconnect the wire leads from the circulation motor terminal.
(2) Remove the screws securing the supporter bracket, insulator-R and the chamber gross assembly to the oven cavity.
(3) To remove the chamber gross assembly, lift the chamber gross assembly up.
(4) Remove one hex nut securing the circulation fan to shaft of the circulation motor.
(5) Remove three screws securing the motor bracket to the chamber.
(6) Remove two hex nuts securing the circulation motor to the motor bracket.

J. REMOVING CONVECTION HEATER AND THERMISTOR (Fig.22)

CONVECTION HEATER

(1) Follow steps one through three in the I part.
(2) Remove three screws securing the chamber wall to the chamber.
(3) Remove two screws securing the convection heater to the chamber.
(4) Pull out the convection heater diagonally with it pursed by both sides from the C-Heater hanger.

THERMISTOR

(1) Follow steps one through three in the I part.
(2) Pull up the themistor.

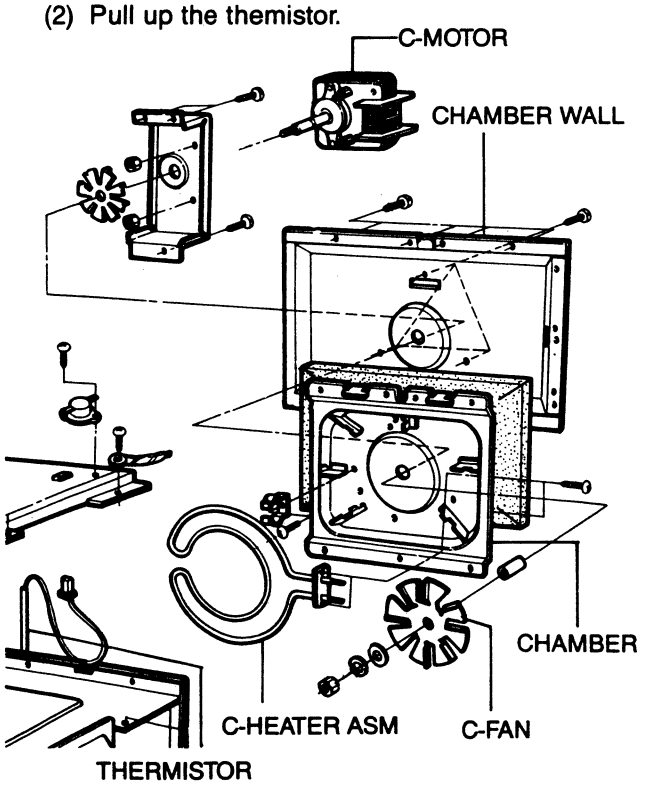


Fig.22

K. REMOVING PRIMARY INTERLOCK SWITCH (Fig.23)

(1) After removing the complete control panel assembly, disconnect the wire leads from the switches.
(2) Remove two screws holding the latch board-U to the front plate flange.
(3) Remove the latch board-U from the flange by moving it upward and push outward.
(4) Remove one screw securing primary switch to the latch board-U.
(5) Remove the switch from the latch board-U.

L. REMOVING SECONDARY INTERLOCK SWITCH, MONITOR SWITCH AND OVEN LAMP SWITCH (Fig.23)

(1) Disconnect the wire leads from the switches.
(2) Remove two screws holding the latch board-L to the front plate flange.
(3) Remove the latch board-L from the flange by moving it upward and push outward.
(4) Remove the individual switch from the latch board-L by removing two screws.

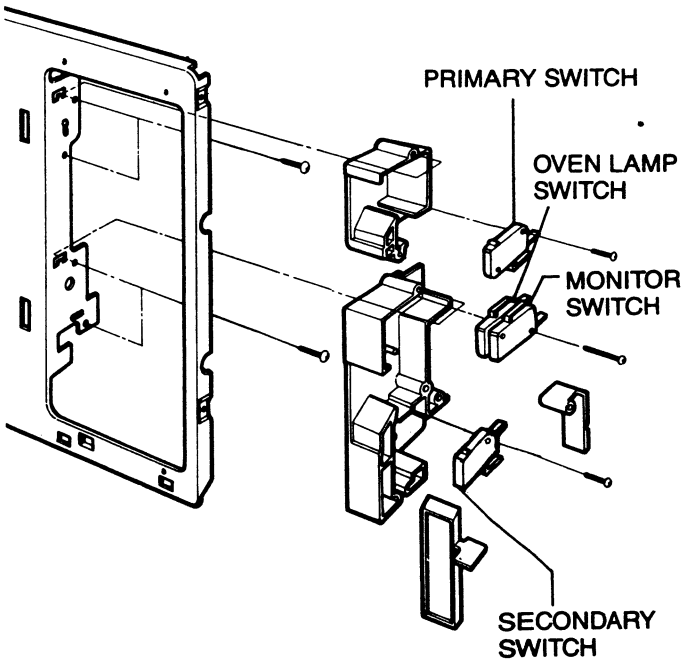
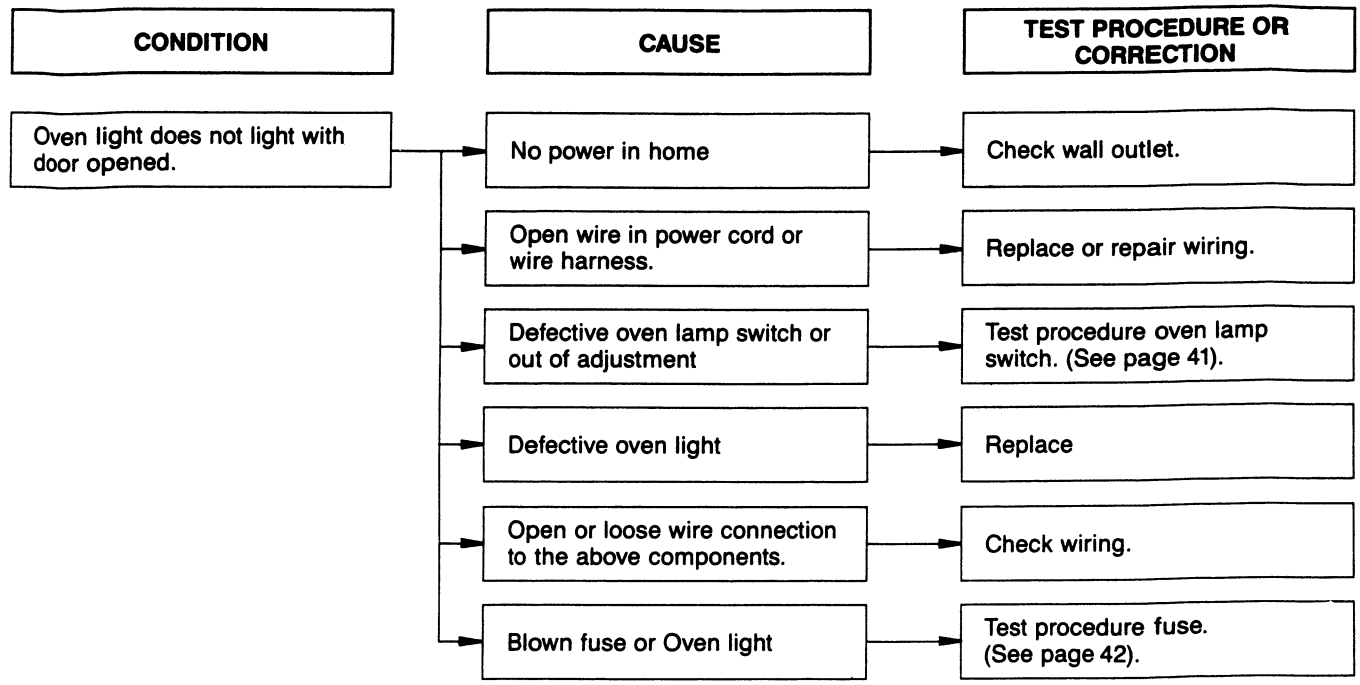


Fig.23

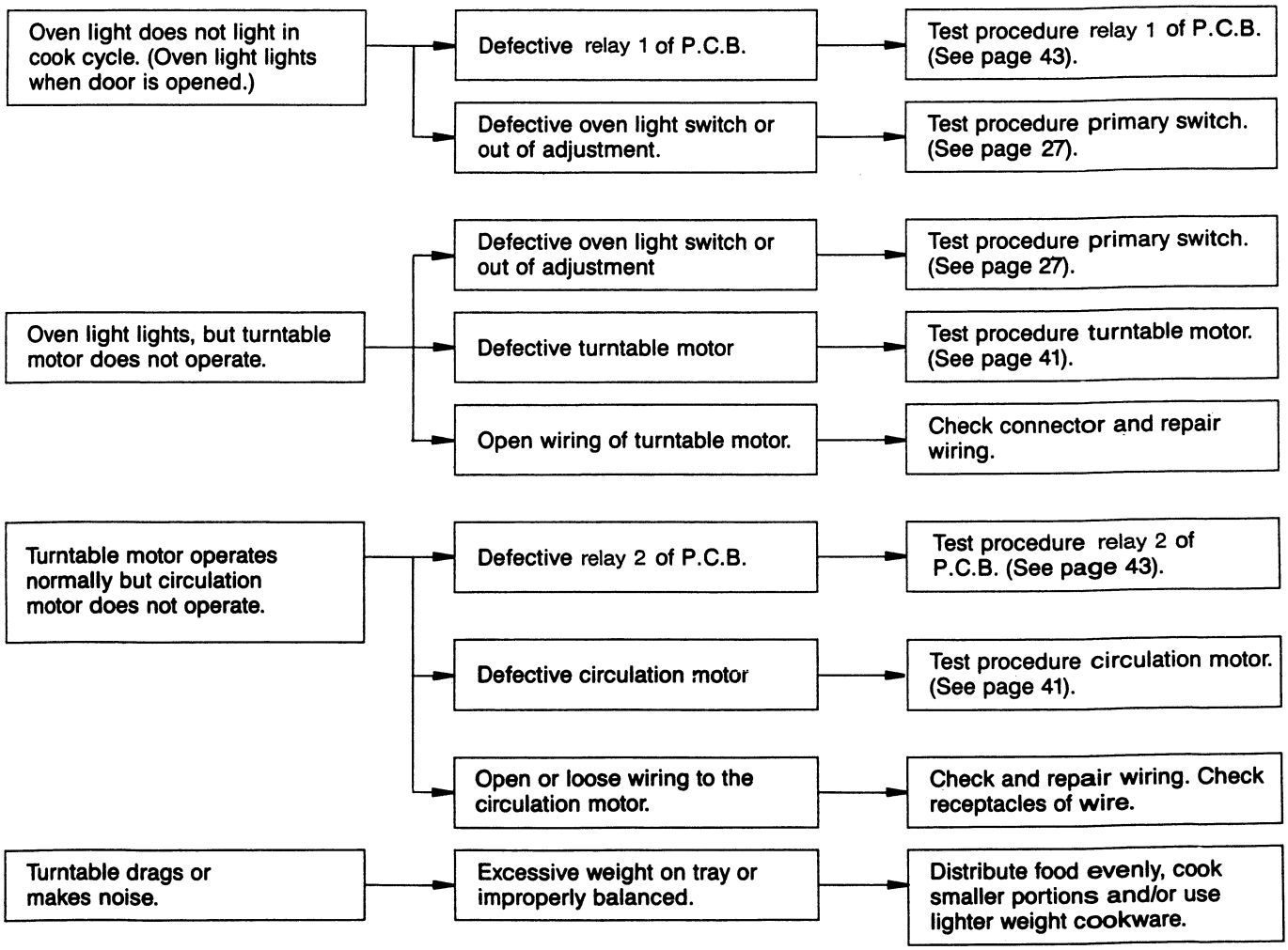
TROUBLESHOOTING

CAUTION: 1. Check grounding before checking for other trouble.
2. Be careful of the high voltage circuit.
3. When checking the continuity of the switches or transformer, disconnect one lead wire from these parts and then check continuity without turning the power source on.
4. Do not touch any part of the circuitry on the control circuit board, since static electric discharge may damage the control circuit.
Always touch yourself to ground while working on this circuit to discharge any static charge built up in your body.
5. First operate the microwave oven following the correct operating.
6. If the oven becomes inoperative because of a fuse, check the primary, the secondary and the monitor switches, before replacing the fuse.

CONDITION	CAUSE	TEST PROCEDURE OR CORRECTION
OFF CONDITION		
The fuse opens when power cord is plugged into wall receptacle.	Shorted wire in power cord or wire harness.	Replace power cord or check and repair wire harness.
	Defective monitor switch or out of adjustment.	Test procedure monitor switch (See page 27).
": 0" does not appear in display window when power cord is first plugged into wall outlet.	Microwave oven plug is not inserted tightly.	Insert microwave oven plug securely.
	No power at outlet.	Check home fuse.
	Open fuse.	Perform fuse test procedure (See page 42).
	Open wire in power cord, wiring harness, or wiring between control panel assembly units.	Replace or repair wiring.
Display does not operate properly when Clock is touched.	Defective membrane key of P.C.B.	Test procedure membrane key of P.C.B. (See page 44).


CONDITION
CAUSE
TEST PROCEDURE OR CORRECTION
Oven light does not light with door opened.
No power in home
Check wall outlet.
Open wire in power cord or wire harness.
Replace or repair wiring.
Defective oven lamp switch or out of adjustment
Test procedure oven lamp switch. (See page 41).
Defective oven light
Replace
Open or loose wire connection to the above components.
Check wiring.
Blown fuse or Oven light
Test procedure fuse. (See page 42).

COOKING CONDITION

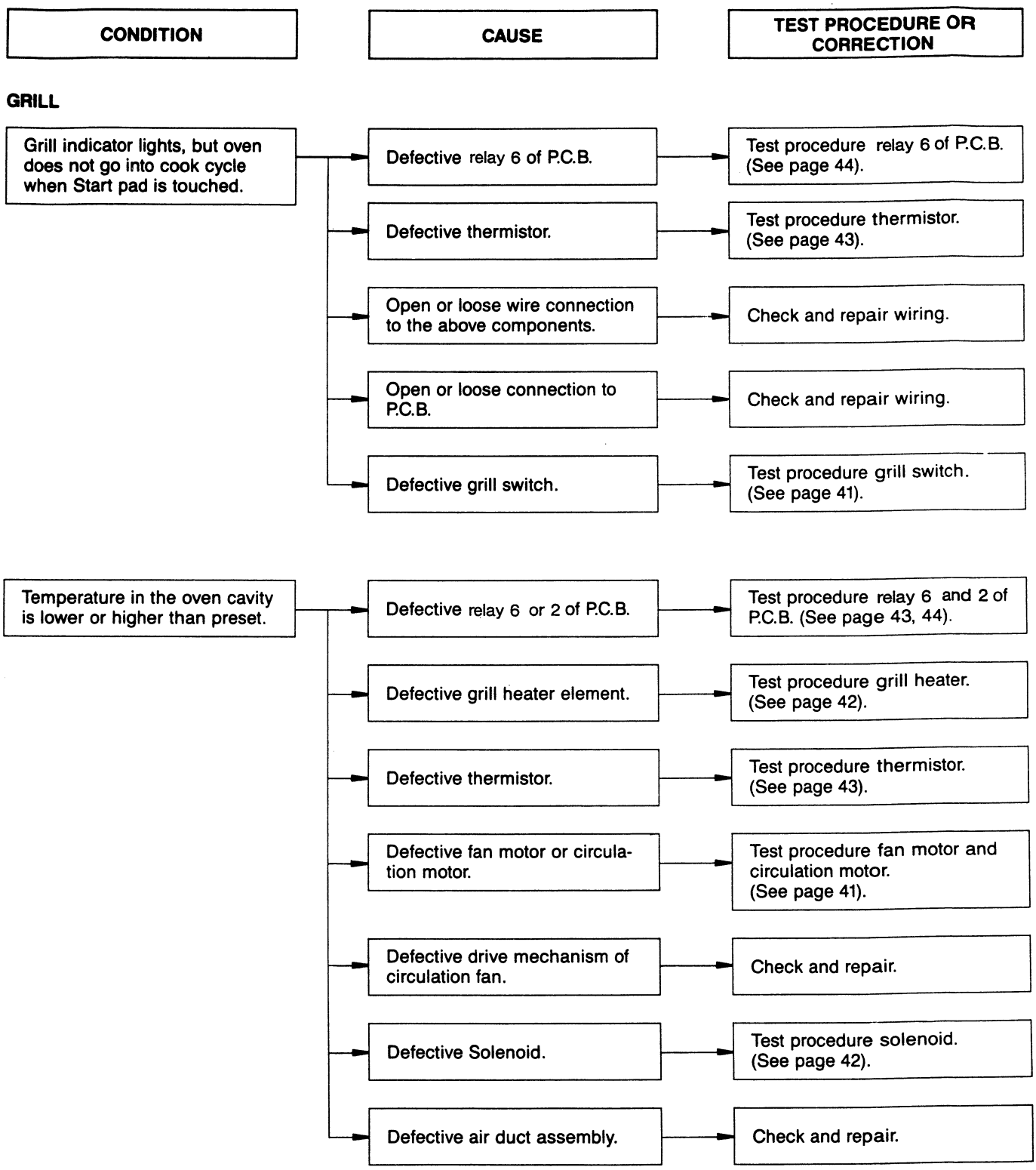

Oven light does not light in cook cycle. (Oven light lights when door is opened.)
Defective relay 1 of P.C.B.
Test procedure relay 1 of P.C.B. (See page 43).
Defective oven light switch or out of adjustment.
Test procedure primary switch. (See page 27).
Oven light lights, but turntable motor does not operate.
Defective oven light switch or out of adjustment
Test procedure primary switch. (See page 27).
Defective turntable motor
Test procedure turntable motor. (See page 41).
Open wiring of turntable motor.
Check connector and repair wiring.
Turntable motor operates normally but circulation motor does not operate.
Defective relay 2 of P.C.B.
Test procedure relay 2 of P.C.B. (See page 43).
Defective circulation motor
Test procedure circulation motor. (See page 41).
Open or loose wiring to the circulation motor.
Check and repair wiring. Check receptacles of wire.
Turntable drags or makes noise.
Excessive weight on tray or improperly balanced.
Distribute food evenly, cook smaller portions and/or use lighter weight cookware.

CONDITION	CAUSE	TEST PROCEDURE OR CORRECTION
No input can be programmed.	Defective membrane key of P.C.B.	Test procedure membrane key of P.C.B. (See page 44).
Some inputs can not be programmed.	Loose connection.	Connect them tightly.
Display shows a number or figure different from one touched.		
Random programming when pressing other than touch pads.		
Display fixes some figure and can not accept any input.		
Setting time does not count down when touch Start.	Defective secondary switch or out of adjustment	Test procedure secondary switch. (See page 27).
	Defective membrane key of P.C.B.	Test procedure membrane key of P.C.B. (See page 44).
	Loose connection.	Test membrane key of P.C.B.
Turntable motor operates normally but Rotisserie motor does not operates	Defective relay 3 of P.C.B	Test procedure relay 3 of P.C.B (See page 44)
	Defective Rotisserie motor	Test procedure Rotisserie Motor (See page 41)
	Open or loose wiring to the Rotisserie motor	Check and repair wiring Check receptacles of wire

CONDITION	CAUSE	TEST PROCEDURE OR CORRECTION
MICROWAVE		
Oven does not go into a cook cycle when Start pad is touched.	Primary and/or secondary interlock switches defective or out of adjustment.	Test procedure primary and secondary switches. (See page 27).
	Defective relay 5 of P.C.B.	Test procedure relay 5 of P.C.B. (See page 43).
	Defective membrane key of P.C.B.	Test procedure membrane key of P.C.B. (See page 44).
	Open or loose wiring to above components.	Check and repair wiring.
Output power is too low.	Defective fan motor.	Test procedure fan motor. (See page 41).
	Low AC input voltage.	Use the microwave oven at adequate line voltage.
	Food temperature is too low.	This may not be a defect. It is possible that the food should be cooked for a longer time period.
	Defective relay 5 or 1 of P.C.B.	Test procedure relay 5 and 1 of P.C.B. (See page 43).
Output is too high when you set lower power level.	Defective relay 5 of P.C.B.	Test procedure relay 5 of P.C.B. (See page 43).
	High AC input voltage.	Use the microwave oven at adequate line voltage.
Sparks occuring.	Using metallic ware and allowing it to touch the oven wall.	Do not use metallic ware for cooking, except where noted in the cookbook.
	Ceramic ware trimmed in gold or silver powder is used.	Do not use any type of cookware with metallic trimming.
Uneven cooking.	Inconsistent intensity of microwave due to their characteristics.	1. Wrap the thinner food with aluminum foil. 2. Use plastic wrap or with a lid. 3. Stir once or twice while cooking soup, cocoa or milk etc.
	Food does not turn during cooking cycle.	Food or cookware extending oven edges of turntable prevents turning; rearrange food.
	Turntable motor does not operate.	Refer to preceding turntable motor problem.

CONDITION	CAUSE	TEST PROCEDURE OR CORRECTION
No microwave oscillation.	Defective relay 5 of P.C.B.	Test procedure relay 5 of P.C.B. (See page 43).
	Defective high voltage transformer.	Test procedure high voltage transformer. (See page 39).
	Defective high voltage capacitor.	Test procedure high voltage capacitor. (See page 40).
	Defective high voltage diode.	Test procedure high voltage diode. (See page 40).
	Defective magnetron.	Test procedure magnetron. (See page 39).
	Low AC input voltage.	Use the microwave oven at adequate line voltage.
	Open or loose wiring to above components.	Check and repair wiring.
	Blown H.V. Fuse	Check H.V. Fuse (See page 42).
	Blown Monitor Fuse	Check Monitor Fuse (See page 42).
Oven operates properly on P-HI but does not cook properly using another cooking power.	Defective relay 5 of P.C.B.	Test procedure relay 5 of P.C.B. (See page 43).
	Defective membrane key of P.C.B.	Test procedure membrane key of P.C.B. (See page 44).

CONDITION	CAUSE	TEST PROCEDURE OR CORRECTION
OVEN		
Oven indicator lights, but oven does not go into cook cycle when Start pad is touched.	Defective relay 4 of P.C.B.	Test procedure relay 4 of P.C.B. (See page 43).
	Defective thermistor.	Test procedure thermistor. (See page 43).
	Open or loose wire connection to the above components.	Check and repair wiring.
	Open or loose connection to P.C.B.	Check and repair wiring.
Temperature in the oven cavity is lower or higher than preset.	Defective relay 4 or 2 of P.C.B.	Test procedure relay 4 and 2 of P.C.B. (See page 43).
	Defective convection heater element.	Test procedure convection heater. (See page 42).
	Defective thermistor.	Test procedure thermistor. (See page 43).
	Defective fan motor or circulation motor.	Test procedure fan motor and circulation motor. (See page 41).
	Defective drive mechanism of circulation fan.	Check and repair.
	Defective Solenoid.	Test procedure solenoid. (See page 42).
	Defective air duct assembly.	Check and repair.


CONDITION
CAUSE
TEST PROCEDURE OR CORRECTION
GRILL
Grill indicator lights, but oven does not go into cook cycle when Start pad is touched.
Defective relay 6 of P.C.B.
Test procedure relay 6 of P.C.B. (See page 44).
Defective thermistor.
Test procedure thermistor. (See page 43).
Open or loose wire connection to the above components.
Check and repair wiring.
Open or loose connection to P.C.B.
Check and repair wiring.
Defective grill switch.
Test procedure grill switch. (See page 41).
Temperature in the oven cavity is lower or higher than preset.
Defective relay 6 or 2 of P.C.B.
Test procedure relay 6 and 2 of P.C.B. (See page 43, 44).
Defective grill heater element.
Test procedure grill heater. (See page 42).
Defective thermistor.
Test procedure thermistor. (See page 43).
Defective fan motor or circulation motor.
Test procedure fan motor and circulation motor. (See page 41).
Defective drive mechanism of circulation fan.
Check and repair.
Defective Solenoid.
Test procedure solenoid. (See page 42).
Defective air duct assembly.
Check and repair.

NOTE:
- MAKE SURE THE WIRE LEADS CORRECTLY POSITIONED.
- WHEN REMOVING THE WIRE LEADS FROM THE PARTS, BE SURE TO GRASP THE CONNECTOR, AND NOT THE WIRES.
- WHEN REMOVING THE MAGNETRON, BE SURE TO INSTALL THE MAGNETRON GASKET IN THE CORRECT POSITION AND GOOD CONDITION.

COMPONENT TEST PROCEDURE

CAUTIONS

1. DISCONNECT THE POWER SUPPLY CORD FROM THE WALL OUTLET WHENEVER REMOVING THE OUTCASE FROM THE UNIT. PROCEED WITH THE TEST ONLY AFTER DISCHARGING THE HIGH VOLTAGE CAPACITOR AND REMOVING THE WIRE LEADS FROM THE PRIMARY WINDING OF THE HIGH VOLTAGE TRANSFORMER. (SEE FIGURE 24)
2. ALL OPERATIONAL CHECKS WITH MICROWAVE ENERGY MUST BE DONE WITH A LOAD (1 LITER OF WATER IN A BEAKER) IN THE OVEN.

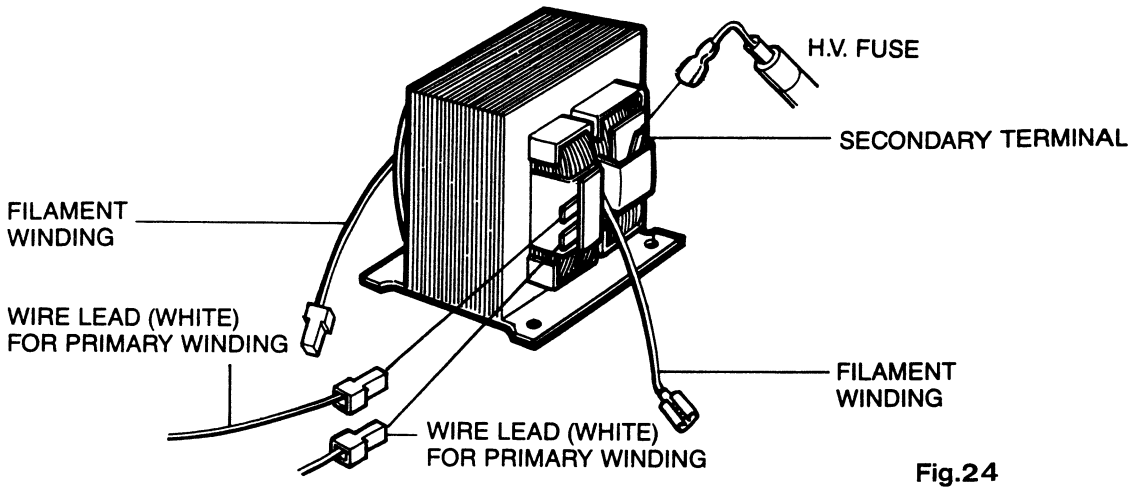
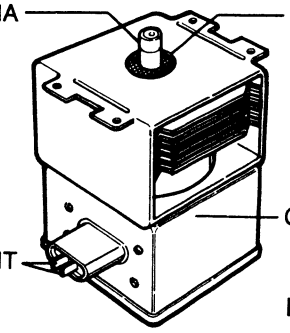
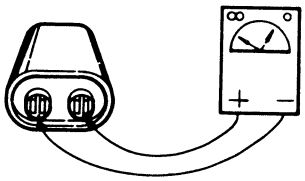
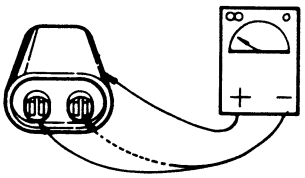
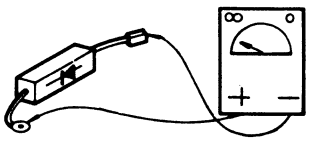
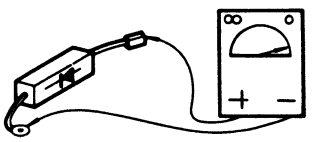


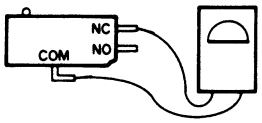
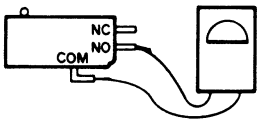
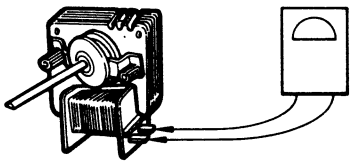
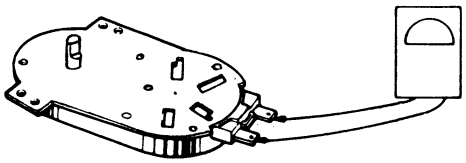
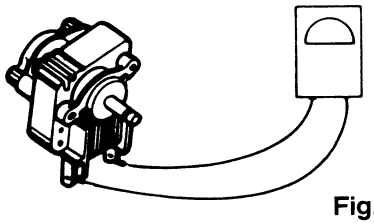
Fig.24

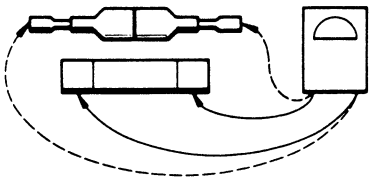
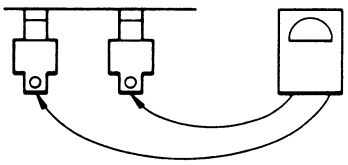
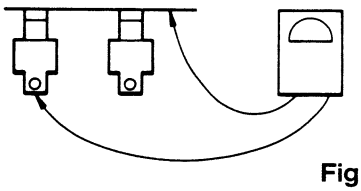
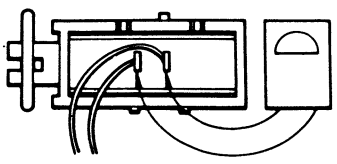
• TEST PROCEDURE

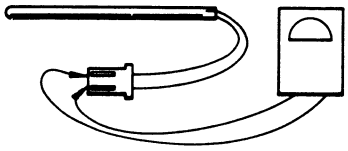
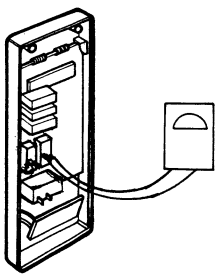
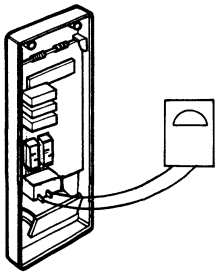
COMPONENTS	TEST PROCEDURE	RESULTS
HIGH VOLTAGE TRANSFORMER (Wire leads removed.)	See Fig.24. 1. Measure the resistance. (Ohm-meter scale: R×1) • Primary winding • Secondary winding • Filament winding 2. Measure the resistance. (Ohm-meter scale: R×1000) • Primary winding to ground • Filament winding to ground	 Approx: 1.3 ohm (at 20°C) Approx: 105 ohm (at 20°C) Less than: 0.1 ohm Normal: Infinite Normal: Infinite
MAGNETRON (Wire leads removed.)	See Fig.25. 1. Measure the resistance. (Ohm-meter scale: R×1) • Filament terminal 2. Measure the resistance. (Ohm-meter scale: R×1000) • Filament to chassis.	 Normal: Less than 1 ohm Normal: Infinite

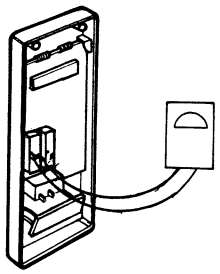
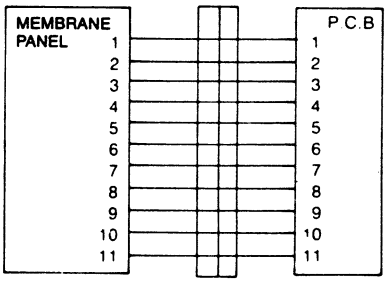
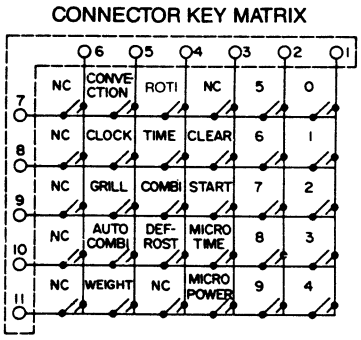
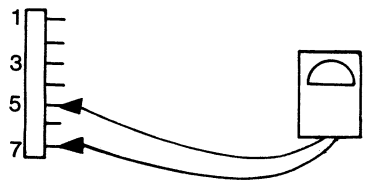
<table>
<tr><th>COMPONENTS</th><th>TEST PROCEDURE</th><th>RESULTS</th></tr>
<tr><td></td><td colspan="2">ANTENNA — GASKET
 
CHASSIS
FILAMENT
Fig.25
NOTE
When testing the magnetron, be sure to install the magnetron gasket in the correct position and be sure that the gasket is in good condition.</td></tr>
<tr><td rowspan="2">HIGH VOLTAGE CAPACITOR</td><td>Measure the resistance.
(Ohm-meter scale: R×1000)
• Terminal to terminal.
 
Fig.26</td><td>Normal: Momentary indicates several ohms, and then gradually returns to infinite.</td></tr>
<tr><td>Measure the resistance.
(Ohm-meter scale: R×1000)
• Terminal to case.
 
Fig.27</td><td>Normal: Infinite</td></tr>
<tr><td rowspan="2">HIGH VOLTAGE DIODE

NOTE: Some inexpensive meters may indicate infinite resistance in both direction.</td><td>Measure the continuity (Forward)
(Ohm-meter scale: R×1000)
 
Fig.28</td><td>Normal: Continuity
Abnormal: Infinite</td></tr>
<tr><td>Measure the continuity (Reverse)
(Ohm-meter scale: R×1000)
 
Fig.29</td><td>Normal: Infinite
Abnormal: Continuity</td></tr>
</table>

<table>
<tr><th>COMPONENTS</th><th colspan="2">TEST PROCEDURE</th><th colspan="2">RESULTS</th></tr>
<tr><td rowspan="3">SWITCHS
(Wire leads removed.)</td><td colspan="2">Check for continuity of the switch with an Ohm-meter</td><td>Door open</td><td>Door close</td></tr>
<tr><td>Oven Lamp Switch</td><td> 
</td><td> </td><td> </td></tr>
<tr><td> 
</td><td> </td><td> </td></tr>
<tr><td colspan="4">NOTE: After checking tor the continuity of switches,make sure that they are correctly connected.</td></tr>
<tr><td>FAN MOTOR
(Wire leads removed.)</td><td colspan="2">Measure the resistance.
(Ohm-meter scale: R×1)
 
Fig.30</td><td colspan="2">Normal: Approx. 145 ohm.
Abnormal: Infinite or Several ohms.</td></tr>
<tr><td>TURNTABLE MOTOR
(Wire leads removed.)
ROTISSERIE MOTOR</td><td colspan="2">Measure the resistance.
(Ohm-meter scale: R×1000)
 
Fig.31</td><td colspan="2">Normal: Approx. 12K ohm.
Abnormal: Infinite or several ohms.</td></tr>
<tr><td>CIRCULATION MOTOR
(Wire leads removed.)</td><td colspan="2">Measure the resistance.
(Ohm-meter scale; R×1)
 
Fig.32</td><td colspan="2">Normal: Approx. 150 ohm
Abnormal: Infinite or several ohm</td></tr>
</table>

<table>
<tr><th>COMPONENTS</th><th>TEST PROCEDURE</th><th>RESULTS</th></tr>
<tr><td rowspan="2">FUSE, H.V. FUSE
MONITOR FUSE</td><td colspan="2">Check for continuity of the fuse with an Ohm-meter
 
Fig.33
NOTE: If the fuse is blown, check the primary, the secondary, the monitor switches, H.V.D and H.V.C before replacing the fuse. (Refer to Test Procedure Switches on page 27, 40)
If the fuse is blown by improper switch operation replace the defective switch and the fuse at the same time.
Replace just the fuse if the switches operate normally.</td><td>Normal:
Abnormal: </td></tr>
<tr><td>HEATER ELEMENT
(Wire leads removed.)</td><td>Measure the resistance.
(Ohm-meter scale: R×1)
 
Fig.34</td><td>Normal:
• Convection heater
Approx. 31 ohm.
(at 20 ~ 30°C)
• Grill heater
Approx 38 ohm
(at 20 ~ 30°C)</td></tr>
<tr><td></td><td>Measure the resistance with 500V-100M ohm insulation resistance meter.
 
Fig.35
NOTE: Make sure heater is fully cooled and tested.</td><td>Normal: more than 0.5 M ohm</td></tr>
<tr><td>SOLENOID
(Disconnect the 4 pin connector from PCB.)</td><td> 
Fig.36</td><td>Normal: Approx. 130 ohm
Abnormal: Infinite or several ohm.</td></tr>
</table>

COMPONENTS	TEST PROCEDURE	RESULTS	
THERMISTOR (Disconnect the 2 pin connector from PCB.)	 Fig.37	Normal at room temperature (20°C ~ 30°C) Approx 1431-2321K ohm	
Relay1 of P.C.B. (Disconnect the7 pin connector from P.C.B.)	 Fig.38	Micro Power Cooking Start	OFF
Relay2 of P.C.B. (Disconnect the7 pin connector from P.C.B.)	 Fig.39	Heater Cooking Start	OFF
Relay5 of P.C.B. (Wire leads removed.)	 Fig.40	Micro Power Cooking Start	OFF
Relay4 of P.C.B. (Wire leads removed.)	 Fig. 41	Convection Cooking Start	OFF

<table>
<tr><th>COMPONENTS</th><th>TEST PROCEDURE</th><th colspan="2">RESULTS</th></tr>
<tr><td rowspan="2">Relay 6 of P.C.B.
(Wire leads removed.)</td><td rowspan="2"> 
Fig. 42</td><td>Grill
Cooking Start</td><td>OFF</td></tr>
<tr><td> </td><td> </td></tr>
<tr><td>Membrane key</td><td> 
 
Fig. 43</td><td colspan="2">Check continuity between switch terminals, by pressing an appropriate pad on the key board.
The contacts assignment of the respective pads on the key board is as shown left figures.</td></tr>
<tr><td rowspan="2">Relay 3 of P.C.B.</td><td rowspan="2"> 
Fig. 44</td><td>Rotisserie
Cooking Start</td><td>OFF</td></tr>
<tr><td> </td><td> </td></tr>
</table>

NOTE: • A MICROWAVE ENERGY LEAKAGE TEST MUST ALWAYS BE PERFORMED WHEN THE UNIT IS SERVICED FOR ANY REASON.
MAKE SURE THE WIRE LEADS ARE CORRECT POSITION.
• WHEN REMOVING THE WIRE LEAD FROM THE PARTS, BE SURE TO GRASP THE CONNECTOR, NOT THE WIRES.

PROCEDURE FOR MEASURING MICROWAVE ENERGY LEAKAGE

CAUTIONS

- Be sure to check a microwave emission prior to servicing the oven if the oven is operative prior to servicing.
- If the oven operates with the door open, the service personnel should;
  — Tell the user not to operate the oven
- The service personnel should check all surface and vent openings for microwave emission testing.
- Check for microwave energy leakage after every servicing. The power density of the microwave radiation leakage emitted by the microwave oven should not exceed 2 mW/cm.sq. And always start measuring of an unknown field to assure safety for operating personnel from radiation leakage.

  NOTE: The standard is 5 mW/cm.sq. while in the customer's home. 2 mW/cm.sq. stated here is manufacturer's own voluntary standard for units in customer's home.

EQUIPMENT

- Electromagnetic energy leakage monitor (NARDA 8100B, HOLADAY H1501)
- 600 cc glass beaker
- Glass thermometer 100°C

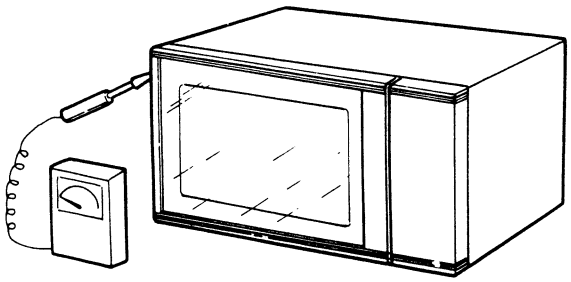


Fig. 45

MEASURING MICROWAVE ENERGY LEAKAGE

- Pour 275 ± 15cc of 20 ± 5°C water in a beaker which is graduated to 600cc, and place the beaker on the center of the turntable.
- Set the energy leakage monitor to 2,450 MHz and use it following the manufacturer's recommended test procedure to assure correct result.
- When measuring the leakage, always use the 2 inch (5 cm) spacer supplied with the probe.
- Operate the oven at its maximum output.
- Measure the microwave radiation using and electromagnetic radiation monitor by holding the probe perpendicular to the surface being measured. (See Fig. 45).

Move probe along shaded area.
//////////////////////////
Probe scanning speed
less than 2.5 cm/sec.

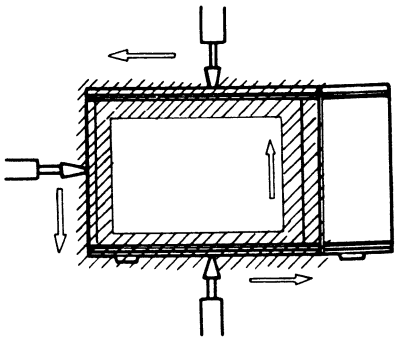


Fig. 46

MEASUREMENT WITH THE OUTER CASE REMOVED

- When you replace the magnetron, measure for microwave energy leakage before the outer case is installed and after all necessary components are replaced or adjusted.
  Special care should be taken in measuring the following parts.
  — Around the magnetron
  — The waveguide

WARNING: AVOID CONTACTING ANY HIGH VOLTAGE PARTS.

MEASUREMENT WITH A FULLY ASSEMBLED OVEN

- After all components, including the outer panels, are fully assembled, measure for microwave energy leakage around the door viewing window, the exhaust opening and air inlet openings.
- Microwave energy leakage must not exceed the values prescribed below.

NOTES:

Leakage with the outer panels removed — less than 5 mW/cm.sq.

Leakage for a fully assembled oven ("Before the latch switch (primary) is interrupted") with the door in a slightly opened position — less than 2 mW/cm.sq.

NOTE WHEN MEASURING

- Do not exceed meter full scale deflection.
- The test probe must be removed no faster than 1 inch/sec (2.5 cm/sec) along the shaded area, otherwise a false reading may result.
- The test probe must be held with the grip portion of the handle.
  A false reading may result if the operator's hand is between the handle and the probe.
- When testing near a corner of the door, keep the probe perpendicular to the surface making sure the probe horizontally along the oven surface, this may possibly cause probe damage.

RECORD KEEPING AND NOTIFICATION AFTER MEASUREMENT

- After adjustment and repair of any microwave energy interruption or microwave energy blocking device, record the measured values for future reference. Also enter the information on the service invoice.
- Should the microwave energy leakage not be more than 2 mW/cm.sq. after determining that all parts are in good condition, functioning properly and genuine replacement parts which are listed in this manual have been used.
- At least once a year, have the electromagnetic energy leakage monitor checked for calibration by its manufacturer.

DETERMINATION OF MEASUREMENT OF MICROWAVE POWER OUTPUT

- Microwave power output measurement is made with the microwave oven supplied at its rated voltage and operated at its maximum microwave power setting with a load of (1000 ± 5)g of potable water.
- The water is contained in a cylindrical borosilicate glass vessel having a maximum material thickness of 3 mm and an outside diameter of approximately 190 mm.
- The oven and the empty vessel are at ambient temperature prior to the start of the test.
- The initial temperature of the water is (10 ± 2)°C. It is measured immediately before the water is added to the vessel. After addition of the water to the vessel, the load is immediately placed on the centre of the shelf which is in the lowest position and the microwave power switched on.
- The time T for the temperature of the water to rise by a value ΔT of (10 ± 2)K is measured, where T is the time in seconds and ΔT is the temperature rise. The initial and final water temperatures are selected so that the maximum difference between the final water temperature and the ambient temperature is 5 K.
- The microwave power output P in watts is calculated from the following formula:

$$P = \frac{4187\ (\Delta T)}{T1}$$

  is measured while the microwave generator is operating at full power. Magnetron filament heat-up time is not included.
- The water is stirred to equalize temperature throughout the vessel, prior to measuring the final water temperature.
- Stirring devices and measuring instruments are selected in order to minimize addition or removal of heat.

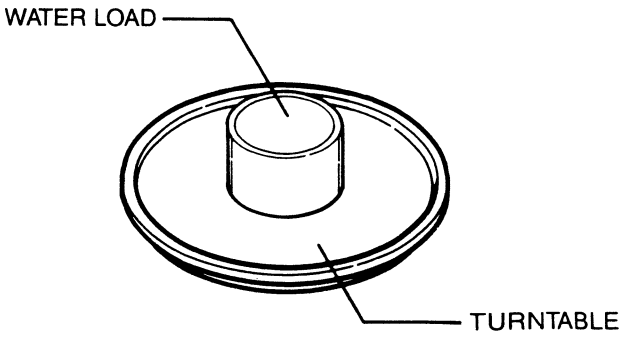
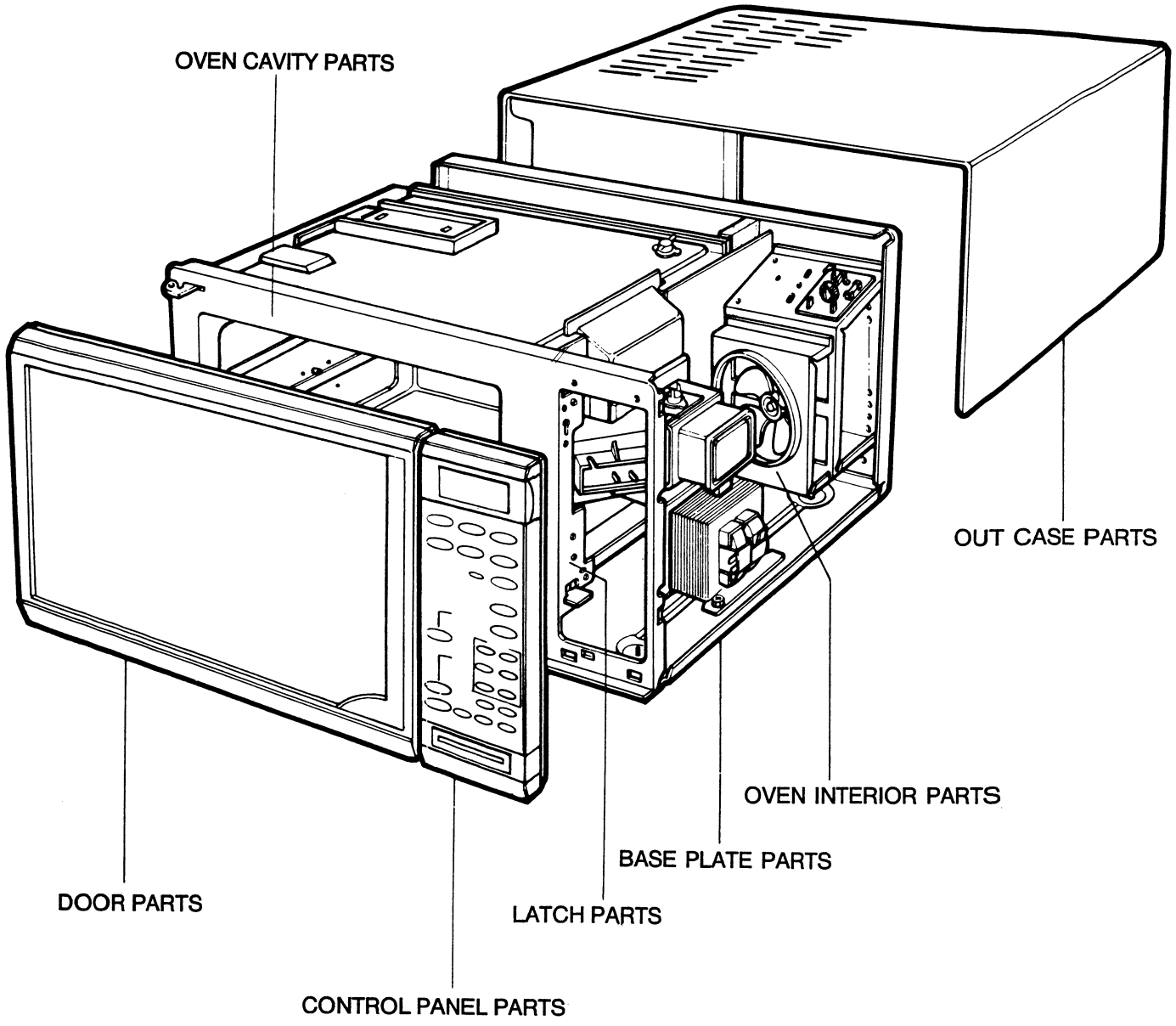


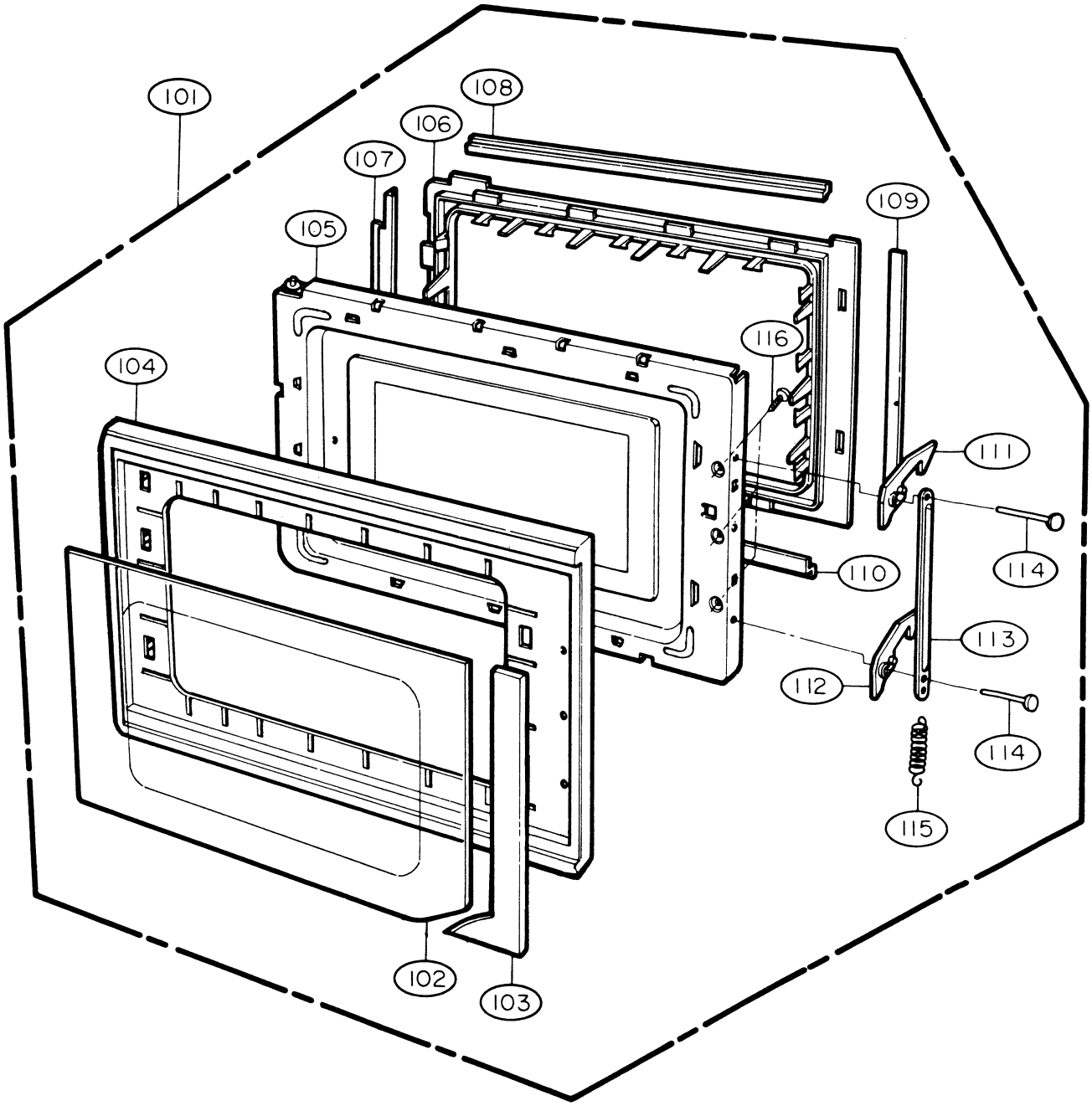
Fig. 47

EXPLODED VIEW AND PARTS LIST

INTRODUCTION



1. DOOR PARTS


101
108
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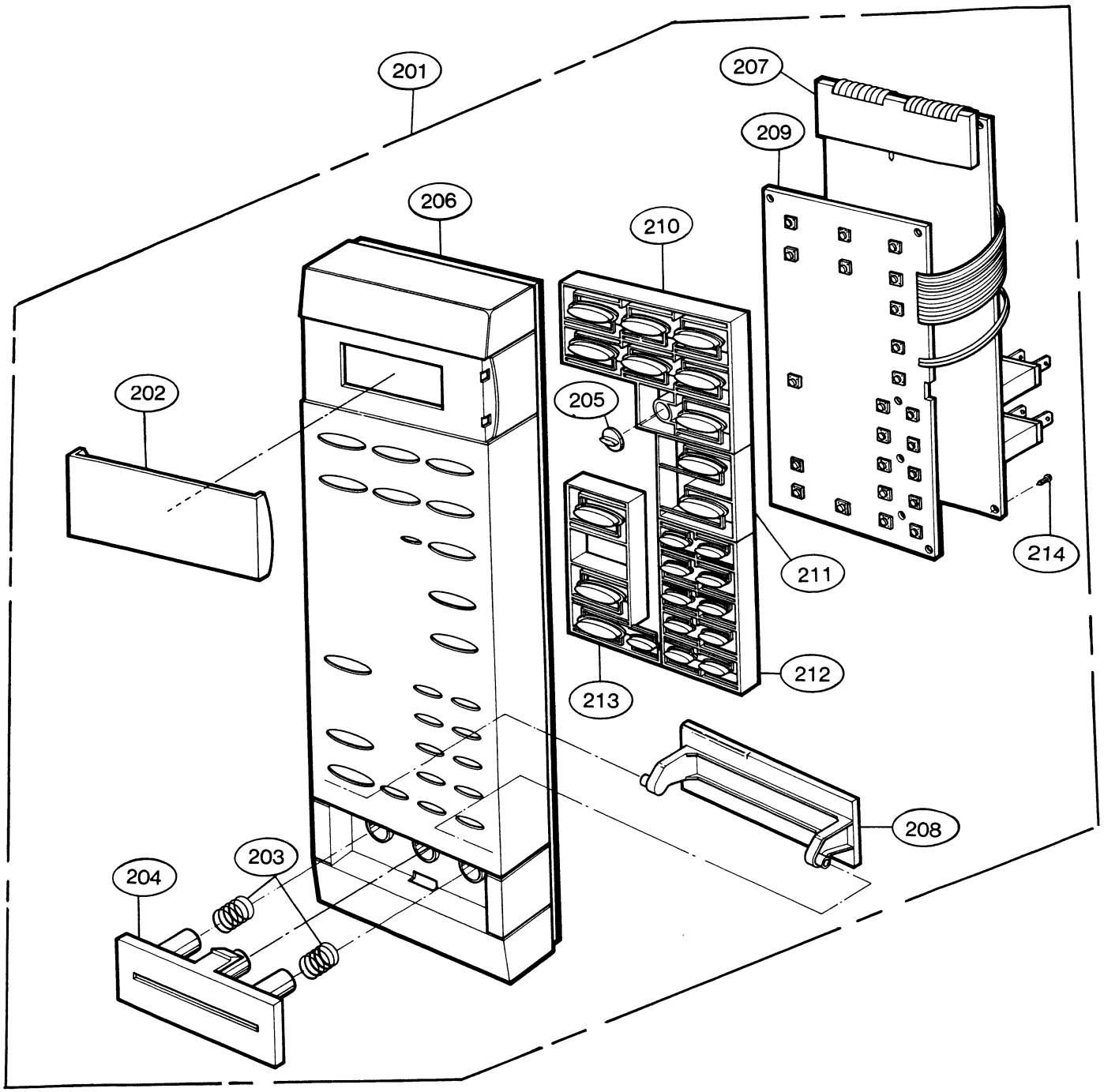
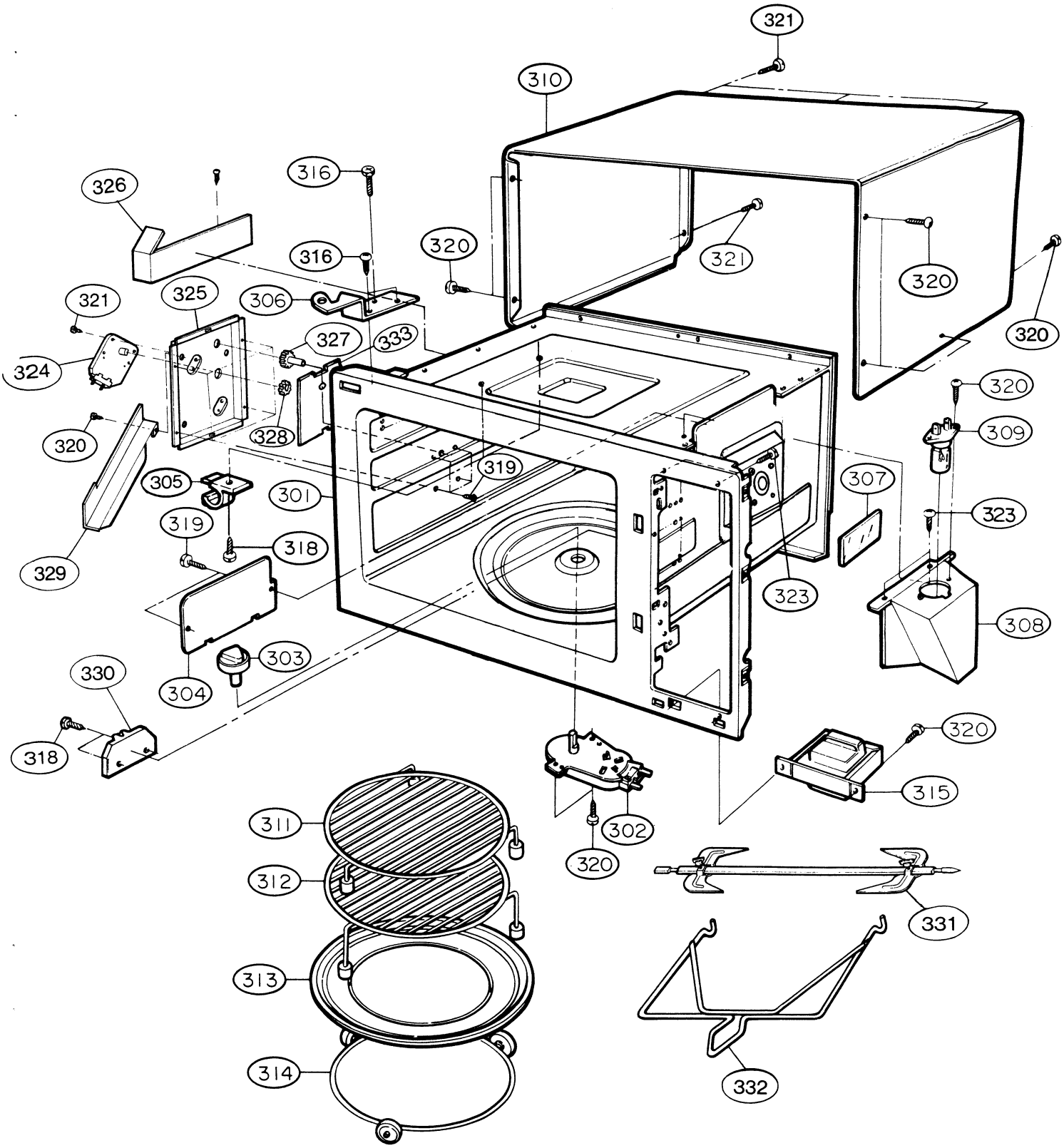
103

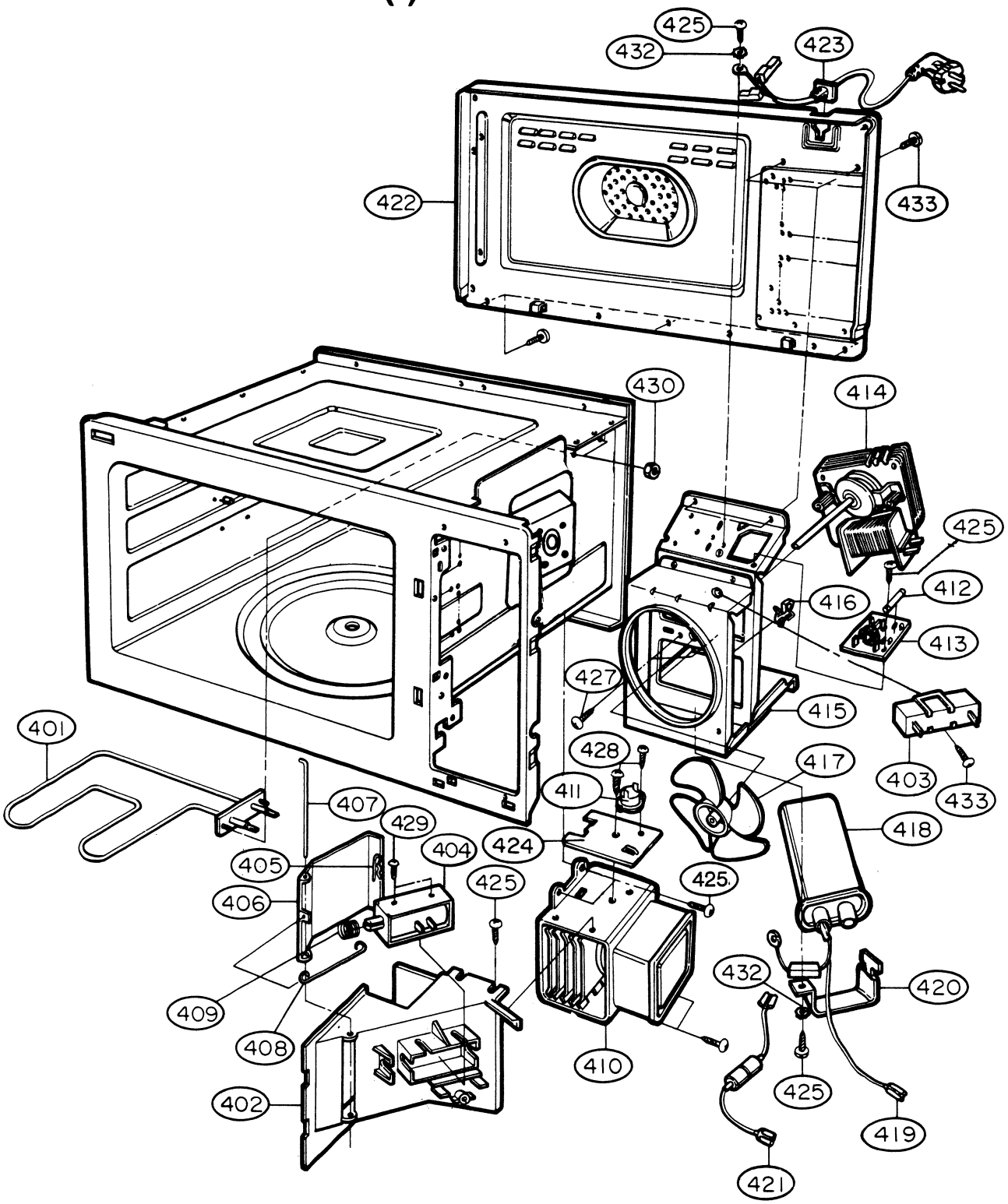
2. CONTROL PANEL PARTS



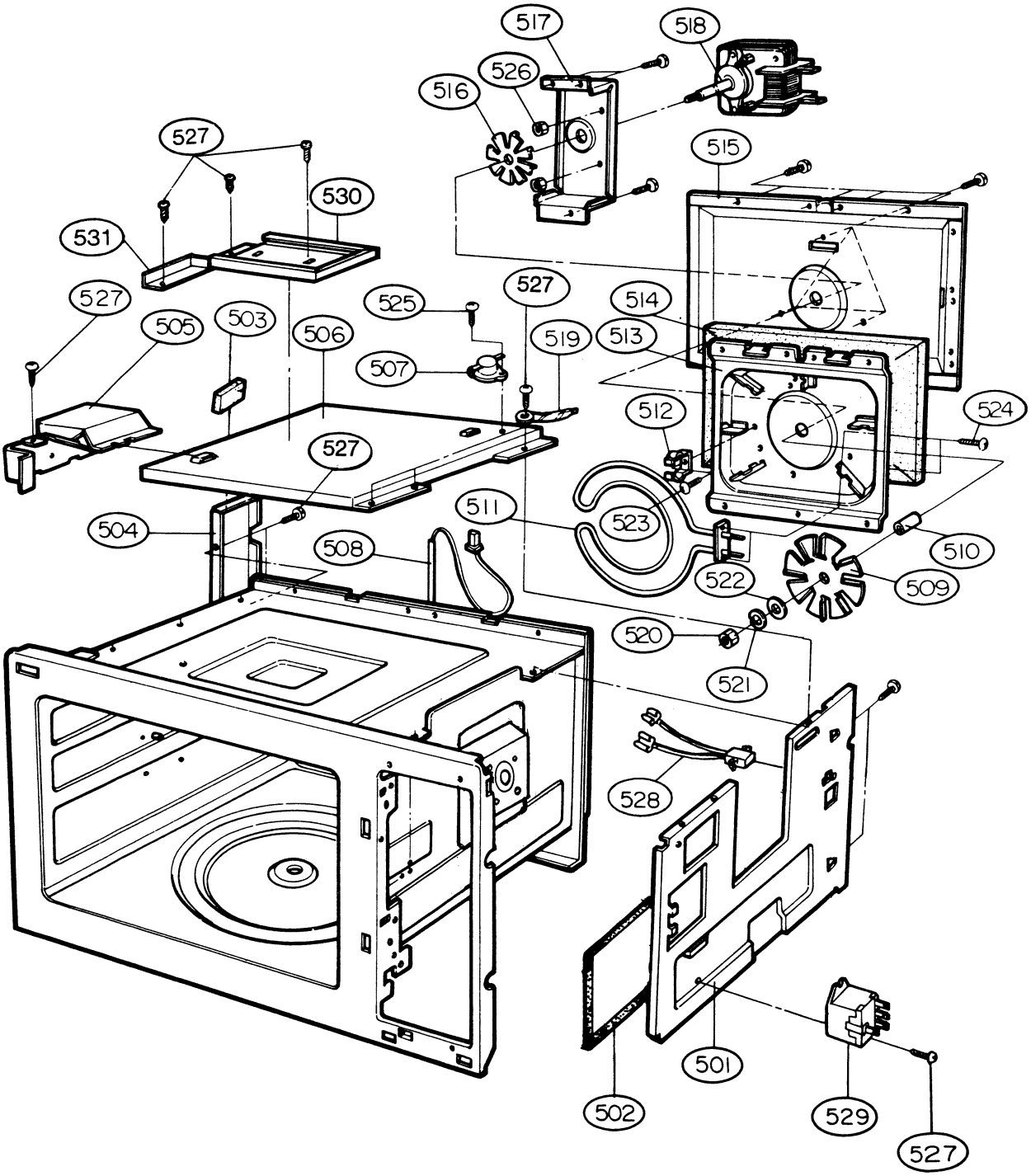
3. OVEN CAVITY PARTS



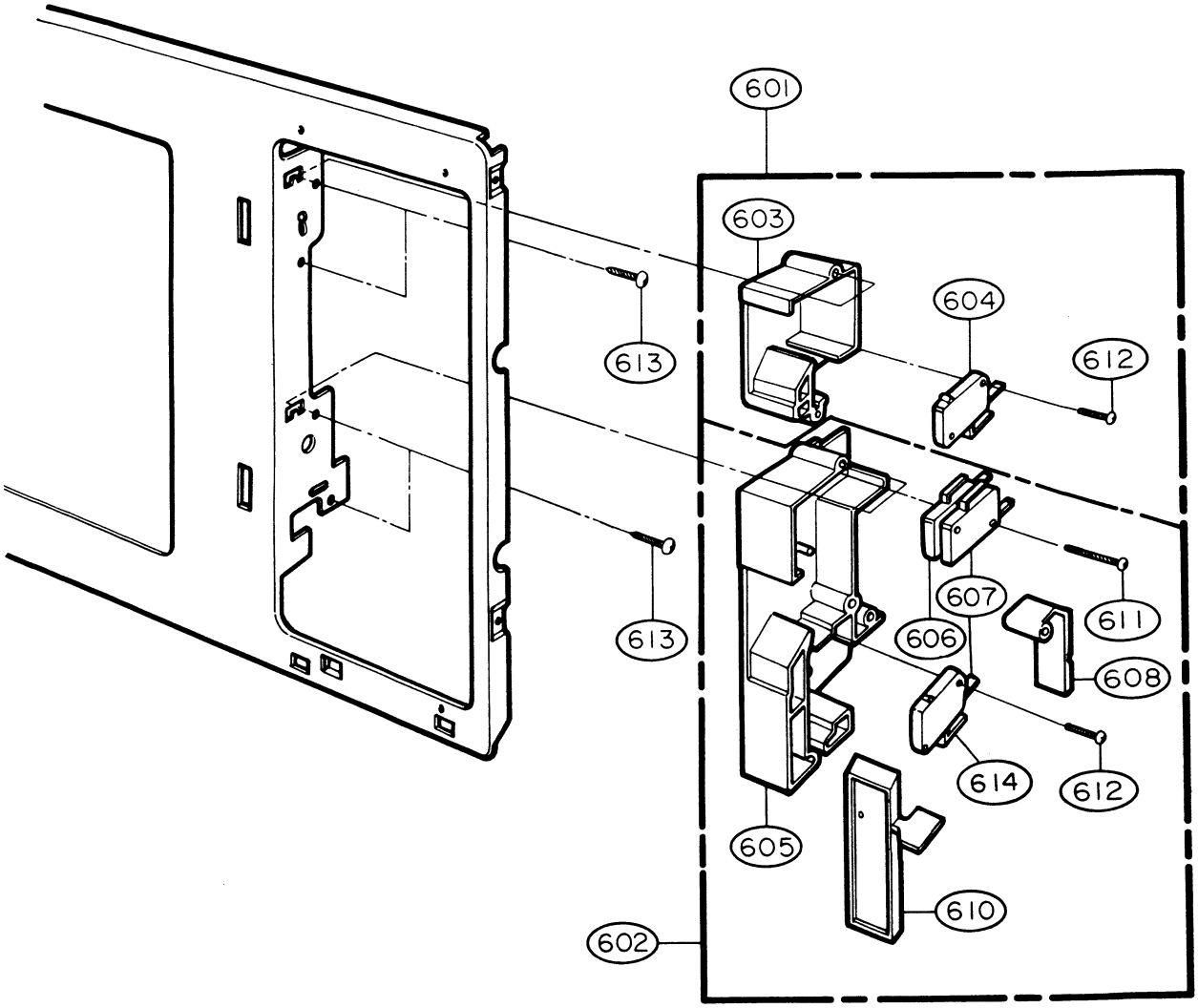
4. OVEN INTERIOR PARTS (1)



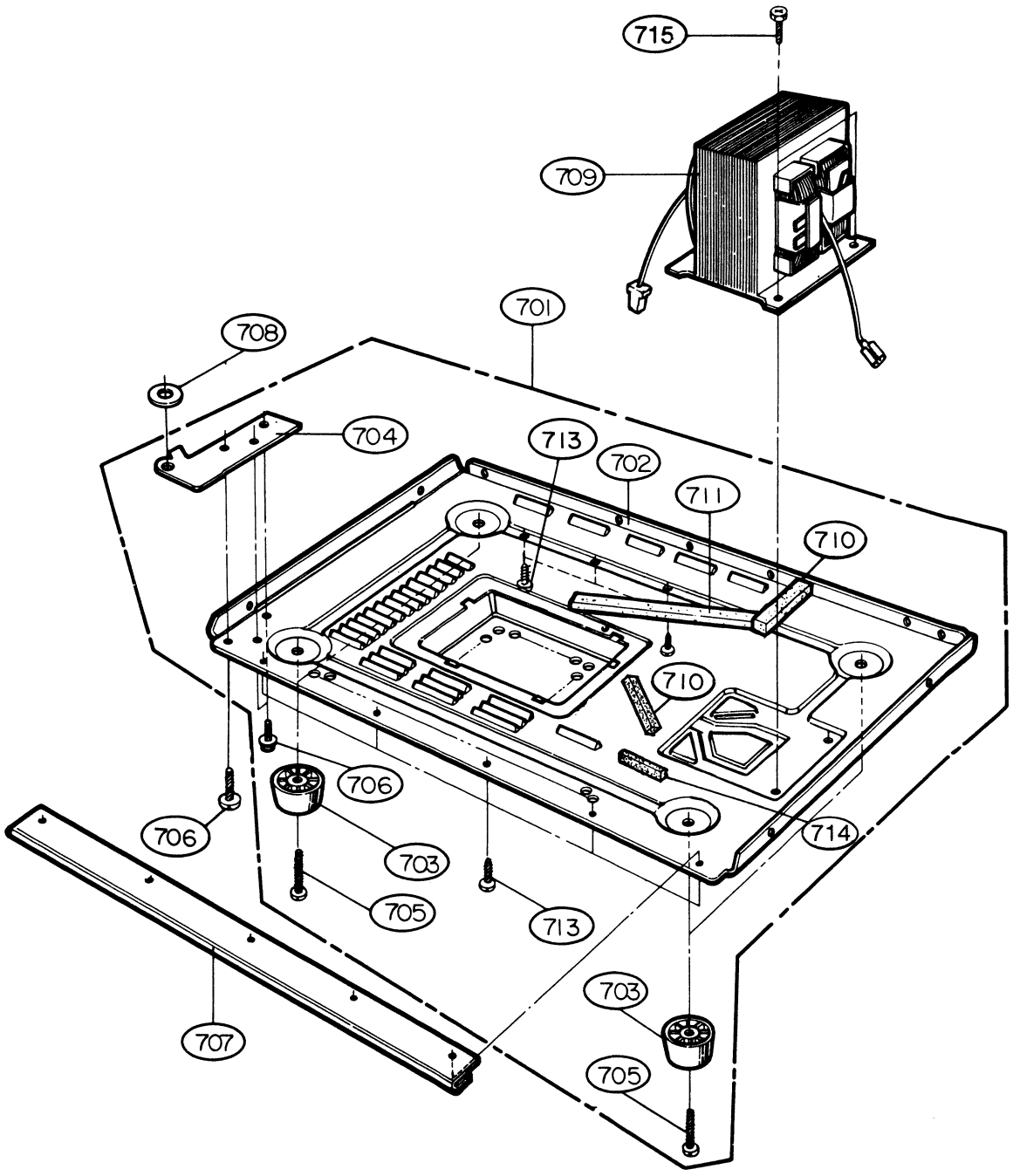
5. OVEN INTERIOR PARTS (2)



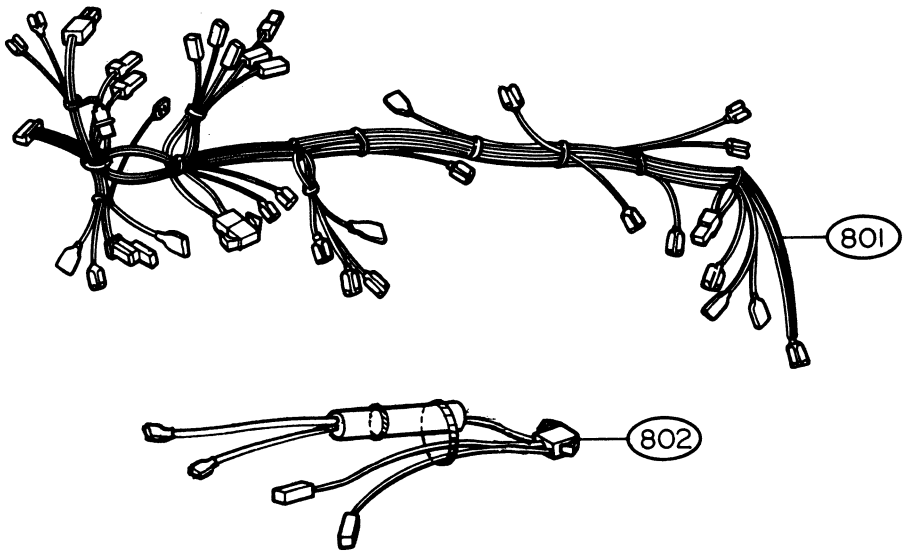
6. LATCH PARTS



7. BASE PLATE PARTS



8. WIRING HARNESS PARTS



REPLACEMENT PARTS LIST

CAUTION: The ★ marks in the parts list designate components which have special characteristics important for safety, and should be replaced only with types identical to those in the original circuit or specified in the parts list. Do not risk the safety of the appliance through improper servicing.

KEY NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1. DOOR PARTS				
101	0B71053A	DOOR GROSS ASM (MA/WH)	1	S
	0B71053F	DOOR GROSS ASM (DA/BR)	1	S
102	2B73144A	OUTER GLASS	1	
103	3B73965A	DOOR DECO (MA/WH)	1	
	3B73965B	DOOR DECO (DA/BR)	1	
104	0B71046D	DOOR PANEL (MA/WH)	1	
	0B71046E	DOOR PANEL (DA/BR)	1	
105	1B71582C	DOOR FRAME ASM	1	
106	1B71371A	CHOKE COVER	1	
107	4B74139B	FERRITE-H	1	
108	4B74142B	FERRITE-T	1	
109	4B74140B	FERRITE-T	1	
110	4B74141B	FERRITE-U	1	
111	3B71929A	LATCH-U	1	
112	3B71930A	LATCH-L	1	
113	3B72692A	LATCH LEVER	1	
114	4B70898A	LATCH PIN	2	
115	4B73100A	LATCH SPRING	1	
116	1TPL0402018	SCREW (4X6)	3	
2. CONTROL PANEL PARTS				
201	1B72239E	CONTROLLER (MA/WH)	1	S
	1B72239F	CONTROLLER (DA/BR)	1	S
202	4B75469E	DIGITRON WINDOW	1	
203	4B72388A	BUTTON SPRING	2	
204	3B73969A	RELEASE BUTTON (MA/WH)	1	
	3B73969B	RELEASE BUTTON (DA/BR)	1	
205	4B75491A	PILOT LAMP	1	
206	1B72197E	CONTROL PANEL (MA/WH)	1	
	1B72197F	CONTROL PANEL (DA/BR)	1	
207	2Q10738B	PCB SUB ASM	1	
208	3B73251A	RELEASE LEVER	1	
209	3Q10568B	KEY ASS'Y	1	
210	3B73966C	TACT S/W BUTTON-A	1	
211	4B75467B	TACT S/W BUTTON-B	1	
212	3B73968C	TACT S/W BUTTON-D	1	
213	3B73967C	TACT S/W BUTTON-C	1	
214	1TPL0302418	SCREW (3X8)	7	
3. OVEN CAVITY PARTS				
301	0B70896H	OVEN CAVITY ASM	1	
302	2B70767G	TURNTABLE MOTOR	1	S
303	4B73908A	TURNTABLE SHAFT	1	
304	4B76094A	OUTLET COVER	1	S
305	4B74483S	G-HEATER HANGER	2	S
306	4B73896A	HINGE PLATE-U	1	

KEY NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
3. OVEN CAVITY PARTS				
307	4B72492A	LAMP GLASS	1	S
308	3B72869A	LAMP COVER	1	
309	3B71543G	BASELESS LAMP	1	S
310	0B71047B	OUT CASE (MA/WH)	1	
	0B71047D	OUT CASE (DA/BR)	1	
311	2B72280B	RACK-C ASM	1	
312	2B72280A	RACK-G ASM	1	
313	2B72301A	TURNTABLE ASM	1	S
314	2B72237A	ROTATING RING ASM	1	S
315	2Q71082H	L.V TRANS ★	1	S
316	4B73763A	SPECIAL SCREW	1	
	4B73763A	SPECIAL SCREW	2	HINGE PLATE-U
318	4B72393A	SPECIAL SCREW	4	S
319	4B70572A	SPECIAL SCREW	6	S
320	1TTL0402418	SCREW (4x8)	2	TURNTABLE MOTOR
	1TTL0402418	SCREW (4x8)	1	BASELESS LAMP
	1TTL0402418	SCREW (4x8)	1	L.V. TRANS
	1TTL0402418	SCREW (4x8)	5	OUT CASE
	1TTL0402418	SCREW (4x8)	7	OUT CASE
323	1TTL0402818	SCREW (4x12)	2	S
	1TTL0402818	SCREW (4x12)	2	MICOM CONTROLLER
324	2B72656E	ROTI MOTOR	1	S
325	3B73973A	ROTI MOROT BRACKET	1	
326	3B73996A	GUIDE BACK	1	
327	4B75472A	ROTI BAR GEAR	1	S
328	4B74952A	ROTI MOTOR GEAR	1	S
329	3B73999A	GUIDE FRONT	1	S
330	4B75484A	ROTI HOLDER	1	S
331	3B74035A	ROTI BAR ASM	1	S
332	2B72896B	ROTI BAR HANDLE	1	S
333	4B75492A	GEAR SUPPORTER	1	S
4. OVEN INTERIOR PARTS (1)				
401	1B71183E	HEATER-G ASM	1	S
402	1B72585A	MONITOR RESISTOR	1	S
403	3B71807A	SOLENOID	1	S
404	3B72012A	SNAP PIN	1	S
405	4W50028F	SNAP PIN	1	S
406	4B73907A	DAMPER BRACKET	1	S
407	4B74088A	DAMPER SHAFT	1	S
408	4B74087A	DAMPER CONNECTOR	1	S
409	4B70923A	SOLENOID SPRING	1	S
410	2B71732B	MAGNETRON	1	S
411	3B70068J	THERMOSTAT M.G.T	1	S

S: SERVICE PARTS

KEY NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
4. OVEN INTERIOR PARTS (1)				
412	3B70856G	FUSE ★	1	S
413	2B72708A	NOISE FILTER ASM	1	S
414	2B72358E	FAN MOTOR	1	S
415	1B71516A	FAN GUIDE SUB ASM	1	
416	4B72944B	WIRE HOLDER	1	S
417	2B72279A	FAN	1	S
418	3B71858L	H.V. CAPACITOR ★	1	S
419	3B73348F	H.V.D. CABLE ASM ★	1	S
420	4B74207A	CAPACITOR BRACKET	1	
421	3B72892K	H.V. FUSE ASM	1	S
422	1B71586A	BACK COVER ASM	1	
423	2B72088B	POWER CORD ASM	1	S
424	4B74584A	THERMO-BRACKET	1	
425	1SBF0402418	SCREW (4×8)	1	H.V.D & CAPA. BRACKET
	1SBF0402418	SCREW (4×8)	1	POWER CORD EARTH
	1SBF0402418	SCREW (4×8)	1	NOISE FILTER ASM
	1SBF0402418	SCREW (4×8)	4	S
427	1MTC0402418	SCREW (4×10)	2	S
428	1TPL0302018	SCREW (3×6)	2	S
429	1MPC0302018	SCREW (3×4)	2	S
430	4B71028A	NUT	2	S
432	4040WRA001A	TOOTH WASHER	1	POWER CORD EARTH
	4040WRA001A	TOOTH WASHER	1	H.V. DIODE
433	1TTL0402418	SCREW (4×8)	4	BACK COVER ASM
	1TTL0402418	SCREW (4×8)	3	FAN GUIDE ASM
	1TTL0402418	SCREW (4×8)	1	MONITOR RESISTOR
5. OVEN INTERIOR PARTS (2)				
501	1B71368A	INSULATOR-R	1	
502	3B72246Q	CUSHION	2	
503	3B72246M	CUSHION	1	
504	2B72369A	SUPPORTER BRACKET	1	
505	2B72122A	AIR TUNNEL	1	
506	1B71367A	INSULATOR-T	1	
507	3B72542F	THERMOSTAT-OVEN	1	S
508	2B72282A	THERMISTOR	1	S
509	3B72561A	C-FAN	1	
510	4B73725A	SHAFT RING	1	
511	1B71187E	C-HEATER ASM	1	S
512	4B73754A	C-HEATER HANGER	1	
513	1B71513A	CHAMBER SUB ASM	1	
514	2B72302A	GLASS WOOL-C	1	
515	1B71278A	CHAMBER WALL	1	

KEY NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
5. OVEN INTERIOR PARTS (2)				
516	3B72559A	ANTI C-FAN	1	
517	3B72717A	MOTOR BRACKET	1	
518	2B72063D	C-MOTOR	1	S
519	4B72510E	LUG	1	
520	1NHA0400032	NUT	1	S
521	1WSD0400032	SPRING WASHER	1	S
522	1WPL0500032	PLAIN WASHER	1	S
523	1TTG0402632	SCREW (4×8)	1	C-HEATER HANGER
	1TTG0402632	SCREW (4×8)	3	CHAMBER WALL
	1TTG0402632	SCREW (4×8)	3	MOTOR BRACKET
524	1MTC0402432	SCREW (4×8)	2	S
525	1TPL0302018	SCREW (3×6)	1	S
526	1NHA0400018	NUT	2	S
*527	1TTL0402418	SCREW (4×8)	7	CHAMBER GROSS ASM
	1TTL0402418	SCREW (4×8)	3	INSULATOR-R
	1TTL0402418	SCREW (4×8)	1	LUG & INSULATOR-R
	1TTL0402418	SCREW (4×8)	1	INSULATOR-T
	1TTL0402418	SCREW (4×8)	1	GUIDE UPPER
	1TTL0402418	SCREW (4×8)	2	AIR TUNNEL
	1TTL0402418	SCREW (4×8)	1	A.C RELAY
	1TTL0402418	SCREW (4×8)	2	SUPPORTER BRACKET
528	4B74175A	C-MOTOR WIRE ASM	1	S
529	3B70211B	A. C RELAY	1	S
530	3B73995A	GUIDE UPPER	1	
531	3B73998A	GUIDE LEFT	1	
6. LATCH PARTS				
601	3B72277C	LATCH BOARD-U ASM	1	S
602	3B72278M	LATCH BOARD-L ASM	1	S
603	3B71933A	LATCH BOARD-U	1	S
604	3B73362F	MICRO S/W-PRIMARY	1	
	3B73362E	MICRO S/W-PRIMARY	1	ALTER
605	3B71931A	LATCH BOARD-L	1	
606	3B73360B	MICRO S/W-OVEN LAMP	1	
	3B73360A	MICRO S/W-OVEN LAMP	1	ALTER
607	3B73360D	MICRO S/W-MONITOR	1	
	3B73360C	MICRO S/W-MONITOR	1	
608	4B70698A	SWITCH LEVER	1	
610	4B74858A	RELEASE ROD	1	
611	1TTL0303618	SCREW (3×25)	2	
612	1TPL0303118	SCREW (3×16)	1	
613	4B70188C	SPECIAL SCREW	4	
614	3B73362A	MICRO S/W-SECONDARY	1	

KEY NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
7. BASE PLATE PARTS				
701	0B70876A	BASE PLATE SUB ASM	1	
702	0B70792A	BASE PLATE	1	
703	4B73900A	LEG	4	
704	4B73895A	HINGE PLATE-L	1	
705	1TTL0402818	SCREW (4×12)	4	
706	4B75265A	SPECIAL SCREW	3	HINGE PLATE-L
707	3B70060C	FRONT DECO-B	1	
708	4B70045B	HINGE WASHER	1	S
709	2B72072C	H.V. TRANS ★	1	S
710	3B72246G	CUSHION	1	
711	3B72246H	CUSHION	1	
713	1TTL0402422	SCREW (4×8)	7	S
714	3B72244D	CUSHION	2	
715	4B73763A	SPECIAL SCREW	2	H.V. TRANS
8. WIRING HARNESS PARTS				
801	1B72607A	LEAD WIRE ASM	1	S
802	3B74375A	ROTI-M WIRE ASM	1	S

S: SERVICE PARTS

GoldStar

20, Yeouide-Dong, Yeoungdeungpo-Gu, Seoul, Korea

P/NO.: 3836WR00266